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THE UTTER DARK

BACK in 1953, Alan E. Nourse, then a med student, followed up a story conference with a letter that seemed to need an answer. It's now five years later and Nourse is a doctor and I still can't think of an answer-except to run the letter here:

the letter size:

"Our talk got me to thinking about the trials of medicine and what it's up against. This example is one of my favorites, since it Illustrates so well that all the as-sorted knowledge of Man isn't worth a hill of bears if Man cart' fand a way to apply it. The case in point: what single exogenous disease kills more people today than any other? Cancer? Not a drop in the bucket. Tilk Twaddis. One so contidiances all the others.

that it's ridiculous—malaria.

"We have in our hands the knowledge and specific drugs right now, today, to enable us to wipe malaria off the face of the Earth in exactly fourteen days, and to eradicate it so thoroughly that would never again plague us.

"There's no uncompleted research involved. We have chloroquin, one dose a week, to kill the circulatory phase of the disease. A cheap, easily manufactured drug, We have primaquin and a couple of other drugs which eradicate the tissue stages of the disease in fourteen days. Also cheap, safe and easily manufactured. And mosquitoes can't spread the disease unless they find a man who has it—

"Yet I venture to say that when I die, malaria will still be the number one exogenous killer of Man." Nourse has the political and economic problems in mind: Bamboo Curtain countries that would find even such as India, that would find even a one per cent reduction in death rate a disaster. "Medicine, correctly, bows out of the malaria picture at this point. The question

The search for that solution,

Nourse maintains, is likely to Involve the Principle of Serendipity, a term coined by Horace Walpole in The Three Princes of Serendib (Ceylon) who displayed exceptional talent for not finding what they were seeking, but instead making accidental Nourse gives some serendippy examples:

(Continued on Page 6)

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GALAXY Science Fiction is sublished monthly by Galaxy Publishin

GALAXY Science Fistins is sublished monthly by Galaxy Publishing Corporation, Main office 2421 Hadison Street, New York, N. N. Y. Str. per copy. Subscription: 121 coines 3.55.0 n year in the United States, Canada, Mesko, South and Central America and U. S. Possession Blowbere 453,0 Exerced as succeptions matter; at the Post Office, New York, N. Y. Coccepting New York 1973, by Galaxy Publishing Corporation, Robert M. Guine, president. All rights, inclin in translations reserved. All matternal submitted must be acceptanced by self-addressed stamps

envelopes. The publisher assumes no responsently for unspected microrial. All stones pruses in this magazine are faction, and any similarity between obstacters and actual persons is coloridental Printed in the U.S.A. by The Guinn Co., Inc., N. Y. (Continued from Page 4)

"Ehrlich got rung in on a grand crusade to find a substance that would be poisonous to certain protein meterials in the human body and leave human protein material untouched. The researchers were after any protein material that didn't belong in the human body and with true Germanic ambitious plodding, they started down the line of all-repeat: all-the known eniline due hy-producte But Ehrlich believed heavy metals would be a magic bullet that would wine out all germ diseases. He didn't find it, of course, but he found a maric bullet that worked fine on syphilitic rabbits. But it ween't what he was after and he spent the rest of his life on a wild-goose chase.

"As a medical student, Freud was assigned the job of identifying the active principle in some berries South American Indians seemed to enjoy. He got interested in what happened to the people who chewed it and left the discovery of cocaine to someone else."

"Fleming, growing bacteria cultures, was after something that had nothing to do with the green mold that floated in and killed his precious bacteria. He practically had to have an atom bomb planted under him before he decided that penicillium notatum, which contaminated the culture, was worth investigating. "This past ten years has seen the most remarkable mushrooming of pharmacological discovery in the history of Man-yet there is only one single drug which has been predicted, compounded, purified and found to comply with the predicted performance. And this was some grubby insignificant drugs."

"A slight reverse: Pasteur, a bacteriologist, wandered through all his work on rabies immunization. with the conviction that it was just another elusive microgramsm like the ones the winegrowers were troubled with. He did what has been repeated only in the last few years: attenuating available with

"We are surrounded by unpre-

dictable variables. Some stagger civilization; others after things in subtle ways. Extrapolation must be contingent on their suddenly popping up. How can we predict the unpredictable? We can't—but our technologies are teaching us not so much to decide what to look for and then look for it, but to be able to recognize a variable when it appears. And they're applications of the complete of the com

Serendipitously, Nourse never did write the story we were discussing. He did a juvenile novel instead. And a plot discussion turns into an editorial. Naturally

- H. L. GOLD

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The Knights of Arthur

By FREDERIK POHL

illustrated by MARTIN

1

HERE was three of us—
I mean if you count Arthur.
We split up to avoid attracting attention. Engdahl just
came in over the big bridge, but I
had Arthur with me so I had to
come the long way around.

When I registered at the desk, I said I was from Chicago. You know how it is. If you say you're from Philadelphia, it's like saying you're from St. Louis or Detroit-I mean nobody lives in Detroit-I mean nobody lives in eago, Philadelphia any more. Shows how things change, A couple years ago, Philadelphia was all the fashion. But not now, and I wanted to make a good impression.

I even tipped the bellboy a hundred and fifty dollars. I said: "Do me a favor. I've got my baggage booby-trapped—"

"Natch," he said, only mildly impressed by the bill and a half, even less impressed by me.

"I mean really booby-trapped. Not just a burglar alarm. Besides the alarm, there's a little surprise



With one suitcase as his damain, Arthur was desperately in need af armed henchmen . . . far his keys ta a kingdam were typewriter keys!



on a short fuse. So what I want you to do, if you hear the alarm go off, is come running. Right?"

"And get my head blown off?" He slammed my bags onto the floor. "Mister, you can take your damn money and-"

"Wait a minute, friend." I passed over another hundred. "Please? It's only a shaped charge. It won't hurt anything except anybody who messes around, see? But I don't want it to go off. So you come running when you hear the alarm

and scare him away and—"
"No!" But he was less positive.
I gave him two hundred more and
he said grudgingly: "All right, If
I hear it. Sav. what's in there that's

worth all that trouble?"

"Papers," I lied. He leered. "Sure."

"No fooling, it's just personal stuff. Not worth a penny to anybody but me, understand? So don't get any ideas..."

He said in an injured tone: "Mister, naturally the staff won't bother your stuff. What kind of a hotel do you think this is?" "Of course, of course," I said.

But I knew he was lying, because I knew what kind of hotel it was The staff was there only because being there gave them a chance to knock down more money than they could make any other way. What other kind of hotel was there?

Anyway, the way to keep the

staff on my side was by bribery, and when he left I figured I had him at least temporarily bought. He promised to keep an eye on the room and he would be on duty for four more hours—which gave me plenty of time for my errands.

I MADE sure Arthur was plugged in and cleaned myself up. They had water running. New York's very good that way, they always have water running. It was even hot, or nearly hot. I let the shower splash over me fee feel of the state of the st

pened.

I dried myself, got dressed and looked out the window. We were fairly high up-fetteenth floor. I could see the Hudson and the high bridge up north of us. There was a huge cloud of smoke coming from somewhere near the bridge on the other side of the river, but outside of that everything looked normal. You would have thought there were people in all those there were people in all those people in the people of the

an ing.

I opened the little bag and las loaded my pockets with enough money to run my errands. At the door, I stopped and called over

my shoulder to Arthur: "Don't worry if I'm cone an hour or so. I'll be back"

I didn't wait for an answer. That would have been pointless under the circumstances

After Philadelphia, this place seemed to be bustling with activity. There were four or five people in the lobby and a couple of dozen more out in the street.

I tarried at the desk for several reasons. In the first place, I was expecting Vern Engdahl to try to contact me and I didn't want him messing with the luggage - not while Arthur might get nervous. So I told the desk clerk that in case anybody came inquiring for Mr. Schlaepfer, which was the name I was using-my real name being Sam Dunlap-he was to be told that on no account was he to go to my room but to wait in the lobby; and in any case I would be back in an hour.

"Sure." said the desk clerk, holding out his hand.

I crossed it with paper, "One other thing," I said. "I need to buy an electric typewriter and some other stuff. Where can I get them?"

"PX," he said promptly. "PX?"

"What used to be Macy's," he explained. "You go out that door and turn right. It's only about a

block. You'll see the sign" "Thanks" That cost me a hun-

dred more, but it was worth it. After all, money wasn't a problem -not when we had just come from Philadelphia

THE big sign read "PX," but it wasn't big enough to hide an older sign underneath that said "Macy's." I looked it over from

across the street

Somebody had organized it pretty well. I had to admire them. I meen I don't like New Yorkwouldn't live there if you gave me the place-but it showed a sort of go-getting spirit. It was no easy job getting a full staff together to run a department store operation. when any city the size of New York must have a couple thousand stores. You know what I mean? It's like running a hotel or anything else-how are you going to get people to work for you when they can just as easily walk down the street, find a vacant store and

set up their own operation? But Macy's was fully manned. There was a guard at every door

and a walking patrol along the block-front between the entrances to make sure nobody broke in through the windows. They all wore green armbands and uniforms-well, lots of people wore uniforms.

I welked over

"Afternoon," I said affably to the guard. "I want to pick up some stuff. Typewriter, maybe a gun, you know. How do you work it was here? Flat rate for all you can serv carry, prices marked on everylato thing or what is it?"

thing, or what is it?"

He stared at me suspiciously.

He was a monster; six inches taller
than I, he must have weighed two

than I, he must have weighed two hundred and fifty pounds. He didn't look very smart, which might explain why he was working for somebody else these days. But he was smart enough for what he had to do.

He demanded: "You new in

I nodded.

He thought for a minute. "All right, buddy. Go on in. You pick out what you want, see? We'll straighten out the price when you

come out."

"Fair enough." I started past

He grabbed me by the arm. "No tricks," he ordered. "You come out the same door you went in, understand?"
"Sure." I said. "if that's the way

you want it."

That figured—one way or another: either they got a commission, or, like everybody else, they lived on what they could knock

down. I filed that for further consideration.

Inside, the store smelled pretty bad. It wasn't just rot, though there was plenty of that; it was musty and stale and old. It was dark, or nearly. About one light in twenty

it was turned on, in order to conn serve power. Naturally the escalators and so on weren't running at all.

I PASSED a counter with pencials and ball-point pens in a case. Most of them were gonesomebody hadn't bothered to go around in back and had simply knocked the glass out-but I found one that worked and an old order pad to write on. Over by the elevators there was a store directory, so I went over and checked

elevators there was a store directory, so I went over and checked it, making a list of the departments worth visiting.

Office Supplies would be the typewriter. Garden & Home was a good bet-maybe I could find a

little wheelbarrow to save carrying the typewriter in my arms. What I wanted was one of the big ones where all the keys are solenoid-operated instead of the cam-and-roller arrangement—that was all Arthur could operate. And those things were heavy, as I knew. That was why we had dithed the old one in the Brony.

Sporting Goods—that would be for a gun, if there were any left. Naturally, they were about the first to go after it happened, when everybody wannted a gun. I men everybody who lived through it. I thought about clothes—it was pretty hot in New York — and decided I might as well take a look.

Typewriter, clothes, gun, wheelbarrow. I made one more note on the pad-try the tobacco counter, but I didn't have much hope for that. They had used cigarettes for currency around this area for a while, until they got enough bank vaults open to supply big bills. It made cigarettes scarce.

I turned away and noticed for the first time that one of the elevators was stopped on the main floor. The doors were closed, but they were glass doors, and although there wasn't any light inside. I could see the elevator was full. There must have been thirty or forty people in the car when it happened.

I'd been thinking that, if nothing else, these New Yorkers were pretty neat-I mean if you don't count the Brony But here were thirty or forty skeletons that nobody had even bothered to clear owow You call that neat? Right in

plain view on the ground floor. where everybody who came into the place would be sure to go-I mean if it had been on one of the upper floors, what difference would it have made?

I began to wish we were out of the city. But naturally that would have to wait until we finished what we came here to do -otherwise, what was the point of coming all the way here in the first place?

THE tobacco counter was bare. I got the wheelbarrow easily enough-there were plenty of those, all sizes: I picked out a nice light red-and-vellow one with rubbertired wheel. I rolled it over to Sporting Goods on the same floor, but that didn't work out too well. I found a 30-30 with telescopic sights, only there weren't any cartridges to fit it-or anything else, I took the gun anyway: Engdahl would probably have some extra

ammunition. Men's Clothing was a waste of time, too - I guess these New Yorkers were too lazy to do laundry. But I found the typewriter I wanted.

I put the whole load into the wheelbarrow, along with a couple of odds and ends that caught my eye as I passed through Housewares, and I bumped as gently as I could down the shallow stens of the motionless escalator to the ground floor. I came down the back way,

and that was a mistake. It led me right past the food department. Well. I don't have to tell you what that was like, with all the exploded cans and the rats as big as poodles. But I found some cologne and soaked a handkerchief in it, and with that over my nose, and some fast footwork for the rats. I managed to get to one of the doors. It wasn't the one I had come in, but that was all right, I sized up the guard. He looked smart enough for a little bargaining, but not too smart; and if I didn't like his price, I could always remember that I was supposed to go out the other door.

I eaid: "Peet!"

When he turned around, I said rapidly: "Listen, this isn't the way I came in, but if you want to do business, it'll be the way I come out."

He thought for a second, and then he smiled craftily and said: "All right, come on."

Well, we haggled. The gun was the big thing — he wanted five thousand for that and he wouldn't come down. The wheelbarrow he was willing to let go for five hundred. And the typewriter — he scowled at the typewriter as though it were contaction.

"What you want that for?" he asked 'suspiciously. I shrugged. "Well-" he scratched his head-

"a thousand?"

"Five hundred?"
I kept on shaking.

"All right, all right," he grumbled. "Look, you take the other things for six thousand-including what you got in your pockets that you don't think I know about, see? And I'll throw this in. How

about it?"

That was fine as far as I was concerned, but just on principle I pushed him a little further. "For-

get it," I said. "Til give you fifty bills for the lot, take it or leave it. Otherwise I'll walk right down the street to Gimbel's and..."

He guffawed.
"What's the matter?" I de-

manded.

i "Pal," he said, "you kill me.

Stranger in town, hev? You can't

go anyplace but here."

"Why not?"

"Account of there ain't anyplace

else. See, the chief here don't like competition. So we don't have to worry about anybody taking their trade elsewhere, like—we burned all the other places down."

That explained a couple of

things. I counted out the money, loaded the stuff back in the wheel-barrow and headed for the Statler; but all the time I was counting and loading, I was talking to Big Brainless; and by the time I was actually on the way, I knew a little more about this "chief."

And that was kind of important, because he was the man we were going to have to know very well.

11

I LOCKED the door of the hotel room. Arthur was peeping out of the suitcase at me.
I said: "I'm back. I got your

typewriter." He waved his eye at me.

I took out the little kit of electricians' tools I carried, tipped the typewriter on its back and began sorting out leads. I cut them free from the keyboard, soldered on a ground wire, and began taping the leads to the strands of a vard of forty-ply multiplex cable.

It was a slow and dull job. I didn't have to worry about which solenoid lead went to which strand - Arthur could sort them out. But all the same it took an hour, pretty near, and I was getting hungry by the time I got the last connection taped. I shifted the typewriter so that both Arthur and I could see it, rolled in a sheet of paper and hooked the cable to

Arthur's receptors. Nothing happened, "Oh." I said. "Excuse me. Arthur, I forgot to plug it in."

I found a wall socket. The typewriter began to hum and then it started to rattle and type:

DURA AUK UKOO ROK MWS AOB It stopped.

impatiently, "Sort them out, will vou?" Laboriously it typed:

Then, for a time, there was a clacking and thumping as he typed random letters, peeping out of the suitcase to see what he had typed. until the sheet I had put in was used up

I replaced it and waited, as patiently as I could, smoking one of THE KNIGHTS OF ARTHUR

the last of my cigarettes. After fifteen minutes or so, he had the hang of it pretty well. He typed:

YOU DAMOXXX DAMN FOOL WHUXXX WHY DID YOU LEAONXXX LEAVE ME ALONE O O

"Aw. Arthur," I said. "Use your head, will you? I couldn't carry that old typewriter of yours all the way down through the Bronx. It was getting pretty beat-up, Anyway. I've only got two hands-" YOU LOUSE, it rattled, ARE YOU TRYONXXX TRYING

TO INSULT ME BECAUSE I DONT HAVE ANY OO "Arthur!" I said, shocked, "You know better than that!" The typewriter slammed its

carriage back and forth ferociously a couple of times. Then he said: ALL RIGHT SAM VOU KNOW YOUVE GOT ME BY THE THROAT SO YOU CAN DO ANYTHING YOU WANT TO WITH ME WHO CARES "Come on, Arthur," I ordered ABOUT MY FEELINGS ANY.

HOW "Please don't take that attitude," I coaxed.

WELL. "Plages?"

He capitulated, ALL RIGHT SAY HEARD ANYTHING FROM ENGDAHL O O

"No." ISNT THAT JUST LIKE HIM O O CANT DEPEND ON

THAT MAN HE WAS THE

LOUSIEST ELECTRICIANS
MATE ON THE SEA SPRITE
AND HE ISNT MUCH BETTER NOW SAY SAM REMEMBER WHEN WE HAD TO GET
HIM OUT OF THE JUG IN
NEWPORT NEWS BECAUSE

night as well. That was the trouble with getting Arthur a new type-writer after a couple of days without one—he had so much garrulty stored up in his little brain, and the only person to spill it on was me.

A PPARENTLY I fell asleep. Well, I mean I must have, because I woke up. I had been dreaming I was on guard post outside the Yard at Portsmouth, and it was night, and I looked up and there was something up there, all silvery and bad. It was a missile—and that was silly, because you never see a missile. But this was a dream.

And the thing burst, like a Roman candle fairing out, all sorts of comet-trails of light, and then the whole sky was full of bright and colored snow. Little tiny flashed ight, radiation dropping like deep, and it was so pretty, and I took and it was so pretty, and I took burned to the state of the state

Well, it was a dream. It probably wasn't like that at all—and if it had been, I wasn't there to see it, because I was tucked away safe under a hundred and twenty fathoms of Atlantic water. All of us were on the Sea Sourie.

But it was a bad dream and it bothered me, even when I woke up and found that the banging explosions of the missile were the noise of Arthur's typewriter carriage crashing furiously back and forth.

He peeped out of the suitcase and saw that I was avake. He demanded: HOW CAN YOU FALL ASLEEP WHEN WERE IN A PLACE LIKE THIS Q O ANY. THING COULD HAPPEN SAM I KNOW YOU DON'T CARE WHAT HAPPENS TO ME BUT FOR YOUR OWN SAKE YOU SHOULDN'T SAKE YOU'S OWN SAKE YOU'S OW

"Oh, dry up," I said.

Being awake, I remembered that I was hungry. There was still no sign of Engdahl or the others, but that wasn't too surprising—they hadrit known exactly when we would arrive. I wished I had thought to bring some food back to the room. It looked like long waiting and I wouldn't want to leave Arthur alone again—after all, he was partly right.

I thought of the telephone.
On the off-chance that it might work, I picked it up. Amazing, a

I crossed my fingers and said: "Room service?"

And the voice answered amiably enough: "Hold on, buddy. I'll see

if their animor" Clicking and a good long wait. Then a new voice said: "Whaddwa

mont?" There was no sense pressing my luck by asking for anything like

a complete meal. I would be lucky if I got a sandwich. I said: "Please, may I have a

Spam sandwich on Rye Krisp and some coffee for Room Fifteen Forty-one?"

"Please, you so to hell!" the voice snarled. "What do you think this is some down delicatemen? You want liquor, we'll get you liquor. That's what room service is fort"

HUNG up. What was the use peevishly: WHATS THE MATTER

SAM YOU THINKING OF YOUR BELLY AGAIN O O "You would be if you-" I started, and then I stopped.

Arthur's feelings were delicate enough already. I mean suppose that all you had left of what you were born with was a brain in a kind of sardine can, wouldn't you be sensitive? Well. Arthur was more sensitive than you would be believe me. Of course, it was his own foolish fault-I mean you

don't get a prosthetic tank unless you die by accident, or something like that, because if it's disease they usually can't save even the

brain The phone rang again.

It was the desk clerk, "Say, did you get what you wanted?" he asked chummily.

"No" "Oh. Too bad," he said, but cheerfully, "Listen, buddy, I forgot to tell you before That Miss

Engdahl you were expecting, she's on her way up." I dropped the phone onto the

cradle "Arthur!" I velled "Keen quiet for a while_trouble!"

He clacked once, and the typewriter shut itself off. I jumped for the door of the bathroom, cursing the fact that I didn't have cartridges for the gun. Still, empty or not, it would have to do.

I ducked behind the bathroom door, in the shadows, covering the hall door. Because there were two things wrong with what the desk clerk had told me. Vern Engdahl wasn't a "miss," to begin with: and whatever name he used when he came to call on me, it wouldn't be Vern Engdahl,

There was a knock on the door.

I called: "Come in!" The door opened and the girl who called herself Vern Engdahl came in slowly, looking around, I staved quiet and out of sight until

17

she was all the way in. She didn't seem to be armed; there wasn't anyone with her.

I stepped out, holding the gun on her. Her eyes opened wide and

"Hold it! Come on in, you. Close the door!"

She did. She looked as though she were expecting me. I looked her over-medium pretty, not very tall, not very plump, not very old. I'd have guessed twenty or so, but that's not my line of work; she could have been almost any age.

The typewriter switched itself on and began to pound agitatedly. I crossed over toward her and paused to peer at what Arthur was yacking about: SEARCH HER YOU DAMN FOOL MAYBE SHES GOT A GUN

from seventeen on.

SHES GOT A GUN
I ordered: "Shut up, Arthur.
I'm going to search her. You! Turn
eround!"

SHE shrugged and turned around, her hands in the air. Over her shoulder, she said: "You're taking this all wrong, Sam. I came here to make a deal with you."

"Sure you did."

But her knowing my name was

a blow, too. I mean what was the use of all that sneaking around if people in New York were going to

know we were here?

I walked up close behind her

and patted what there was to pat.
There didn't seem to be a gun.
"You tickle," she complained.
I took her pocketbook away
from her and went through it. No
gun. A lot of money—an awful
lot of money. I mean there must

have been two or three hundred

thousand dollars. There was nothing with a name on it in the pocketbook. She said: "Can I put my hands down, Sam?"
"In a minute." I thought for a

"In a minute." I thought for a second and then decided to do it you know, I just couldn't afford to take chances. I cleared my throat and ordered: "Take off your cleather"

Her head jerked around and she stared at me, "What?"

"Take them off. You heard me."
"Now wait a minute-" she be-

I said: "Do what I tell you, hear? How do I know you haven't got a knife tucked away?" She clenched her teeth. "Why,

you dirty little man! What do you think—" Then she shrugged. She looked at me with contempt and said: "All right. What's the difference?"

Well, there was a considerable difference. She began to unzip and unbutton and wriggle, and pretty soon she was standing there in her underwear, looking at me as though I were a two-headed worm. It was interesting, but kind of embarrassing. I could see Arthur's eye-stalk waving excitedly out of the opened suitcase.

I picked up her skirt and blouse and shook them. I could feel myself blushing, and there didn't seem to be anything in them. I growled: "Oksy, I guess that's

enough. You can put your clothes

"Gee, thanks," she said.

She looked at me thoughfully and then shook her head as if a he'd never seen anything like me before and never hoped to again. Without another word, abe begin to get back into her clothes. I had to admire her poise. I mean she was perfectly calm about the whole thing. You'd have thought she was used to taking her clothes off in front of strange men.

Well, for that matter, maybe she was; but it wasn't any of my business.

A RTHUR was clacking distractedly, but I didn't pay any attention to him. I demanded: "All right, now who are you and what

right, now who are you and what do you want?"

She pulled up a stocking and said: "You couldn't have asked me that in the first place, could

you? I'm Vern Eng..."
"Cut it out!"
She stared at me. "I was only
going to say I'm Vern Engdahl's
partner. We've got a little business
deal cooking and I wanted to talk

to you about this proposition."
Arthur squswked: WHATS
ENGDAHL UP TO NOW Q Q
SAM IM WARNING YOU I
DONT LIKE THE LOOK OF
THIS THIS WOMAN AND

ENGDAHL ARE PROBABLY DOUBLECROSSING US I said: "All right, Arthur, relax. I'm taking care of things, Now

start over, you What's your name?"
She finished putting on her shoe

She inished putting on her shoe and stood up. "Amy." "Last name?"

She shrugged and fished in her purse for a cigarette. "What does it matter? Mind if I sit down?" "Go ahead," I rumbled. "But don't ston talkine!"

"Oh," she said, "we've got plenty of time to straighten things out." She lit the cigarette and walked over to the chair by the window. On the way, she gave the luggage a good long look.

Arthur's eyestalk cowered back into the suitcase as she came close. She winked at me, grinned, bent down and peered inside.

"My," she said, "he's a nice shiny one, isn't he?"

The typewriter began to clatter if rantically. I didn't even bother to look; I told him: "Arthur, if you can't keep quiet, you have to expect people to know you're there." She sat down and crossed her

legs. "Now then," she said. "Frankly, he's what I came to see you about. Vern told me you had a pross. I want to buy it." The typewriter thrashed its car-

riage back and forth furiously.
"Arthur isn't for sale."

"No?" She leaned back: "Vern's already sold me his interest, you know. And you don't really have any choice. You see, I'm in charge of materiel procurement for the Major. If you want to sell your share, fine. If you don't, why, we requisition it anyhow. Do you follow?"

I was getting irritated – at Vern Engdahl, for whatever the hell he thought he was doing; but at her because she was handy. I shook my head. "Fifty thousand dollars? I mean

for your interest?"

"Seventy-five?"
"No!"

"Oh, come on now. A hundred thousand?"

It wasn't going to make any impression on her, but I tried to explain: "Arthur's a friend of mine. He isn't for sale."

C.HE shook her head "What's

the matter with you? Engdahl wasn't like this. He sold his interest for forty thousand and was glad to get it."

Clutter-clatter-clatter from Ar-

thur. I didn't blame him for having hurt feelings that time.

Amy said in a discouraged tone:

"Why can't people be reasonable? The Major doesn't like it when people aren't reasonable."

I lowered the sun and cleared

my throat. "He doesn't?" I asked, cuing her. I wanted to hear more about this Major, who seemed to have the city pretty well under his

thumb

"No, he doesn't." She shook her head sorrowfully. She said in an accusing voice: "You out-of-towners don't know what it's like to try to run a city the size of New York. There are fifteen thousand people here, do you know that? It isn't one of your hick towns. And it's worry, worry all the time, trying to keep things going." It bet." It said symmathetically.

"You're, uh, pretty close to the Major?"
She said stiffty: "I'm not married to him, if that's what you mean. Though I've had my

chances But you see how it is Fifteen thousand people to run a place the size of New Yorld It's forty men to operate the power station, and twenty-five on the PX, and thirty on the hotel here. And then there are the local groceries, and the Army, and the Coast Guard, and the Air Forcethough, really, that's only two men -and-Well, you set the nicture.

"I certainly do. Look, what kind of a guy is the Major?"

She shrugged. "A guy."
"I mean what does he like?"

"Women, mostly," she said, her expression clouded. "Come on now. What about it?"

I stalled. "What do you want Arthur for?"

She gave me a disgusted look. "What do you think? To relieve the manpower shortage, naturally. There's more work than there are men. Now if the Major could just get hold of a couple of prosthetics, like this thing here, why, he could put them in the big installations. This one used to be an engineer or somethine. Vern said."

"Well . . . like an engineer."

A MY shrugad. "So why couldn't we connect him up with the power station? It's been dose. The Major knows that—he was in the Pentagon when they switched all the aircraft warning net over from computer to prosthetic control. So why couldn't we do the same thing with our power station and release forty men for other assignments? This thing could work day, night, Sundays—what's the difference when you're just a brain in a surdine can't in a surdine can't.

Clatter-rattle-bang. She looked startled. "Oh. I for-

got he was listening."
"No deal," I said.
She said: "A hundred and fifty

thousand?"

A hundred and fifty thousand dollars. I considered that for a while. Arthur clattered warningly.

THE KNIGHTS OF ARTHUR

ser "Well," I temporized, "I'd have w. to be sure he was getting into good honds..."

The typewriter thrashed wildly. The sheet of paper fluttered out of the carriage. He'd used it up. Automatically I picked it up.-it was covered with imprecations, self-nity and threats—and started

to put a new one in.
"No," I said, bending over the
typewriter, "I guess I couldn't sell
him. It just wouldn't be right.—"
That was my mistake; it was

the wrong time for me to say that, because I had taken my eyes off her.

The room bent over and clouted me.

I half turned, not more than a fraction conscious, and I saw this Amy girl, behind me, with the shoe still in her hand, raised to give me another blackjacking on the skull.

The shoe came down, and it must have weighed more than it looked, and even the fractional bit of consciousness went crashing away.

Ш

I HAVE to tell you about Vern Engdahl We were all from the Sea Sprite, of course — me and Vern and even Arthur. The thing about Vern is that he was the lowest-ranking one of us all-only an electriciant, mate third. I meen when anybody paid any attention to things like that—and yet he was pretty much doing the thinking for the rest of us. Coming to New York was his idea—he told us that was the only place we could get what we wanted.

Well, as long as we were carrying Arthur along with us, we pretly
much needed Vern, because he
was the one who knew how to
keep the lash-up going, You've got
no idea what kind of pumps and
plumbing go into a prosthetic tank
until you've seen one opened up,
And, naturally, Arthur didn't want
any breakdowns without somebody around to fix things up.

The See Sprife, maybe you know, was one of the old liquidsodium-reactor subs-too slow for
combat duty, but as big as a brown so they made it a hospital ship. We
were crusing deep when the missiles hit, and, of course, when we
came up, there wann't much for a
hospital ship to do. I mean there
in any any subsection of the course
in any sense fooling around with
anybody who's taken a good deep
breath of fallow.

So we went back to Newport News to see what had happened. And we found out what had happened. And there wasn't anything much to do except pay off the crew and let them go. But us three stuck together. Why not? It wasn't as if we had any families to go back to any more.

Vern just loved all this stuff-

he'd been an Eagle Socut; maybe that had something to do with it and he showed us how to boil drinking water and forage in the woods and all like that, because nobody in his right mind wanted to go near any kind of a town, until the cold weather set in, anyway. And it was always Vern, Vern, telling us what to do, ironing not our troublet.

It worked out, except that there was this one thing. Vern had bright ideas. But he didn't always tell us what they were.

So I wan't so very surptised when I came to I mean there I was, tied up, with this girl Any standing over me, holding the sun like a club. Evidently she'd found out that there weren't any carridges. And in a couple of minutes there was a knock on the door, and she yelled, 'Come in,' and in came Vern. And the man who was with him had to be somebody important, because there were eight or ten other men crowding in close to the control of th

I didn't need to look at the oak leaves on his shoulders to realize that here was the chief, the fellow

who ran this town, the Major.

It was just the kind of thing

VERN said, with the look on his face that made strange officers wonder why this poor persecuted man had been forced to spend so much time in the brig: "Now, Major, I'm sure we can straighten all this out. Would you mind leaving me alone with my friend here

for a moment?"

The Major tectered on his heels,

thinking. He was a tall, youngishbald type, with a long, worried, horselike face. He said: "Ah, do

you think we should?"
"I guarantee there'll be no
trouble, Major," Vern promised.
The Major mulled at his little

mustache. "Very well," he said.
"Amy, you come along."

"We'll be right here, Major," Vern said reassuringly, escorting

"You bet you will," said the Major, and tittered. "Ah, bring that gun along with you, Amy. And be sure this man knows that

They closed the door. Arthur had been cowering in his suitcase, but now his eyestalk peeped out and the rattling and clattering from that typewriter sounded like the Battle of the Bulse.

I demanded: "Come on, Vern. What's this all about?"

Vern said: "How much did they offer you?" Clatter-bang-BANG, I peeked,

and Arthur was saying: WARNED YOU SAM THAT ENDOAHL WAS UP TO TRICKS PLEASE SAM PLEASE PLEASE PLEASE HIT HIM ON THE HEAD WHOCK HIM OUT HE

w, MUST HAVE A GUN SO GET en IT AND SHOOT OUR WAY ev- OUT OF HERE

"A hundred and fifty thousand dollars," I said.

Vern looked outraged. "I only

Arthur clattered: VERN I AP-PEAL TO YOUR COMMON DECENCY WERE OLD SHIP-MATES VERN REMEMBER

ALL THE TIMES I
"Still," Vern mused, "it's all
common funds anyway, right?

Arthur belongs to both of us."

I DONT DONT DONT REPEAT DONT BELONG TO
ANYBODY BUT ME

"That's true," I said grudgingly. "But I carried him, remember," SAM WHATS THE MAT-TER WITH YOU Q Q I DONT LIKE THE EXPRESSION ON YOUR FACE LISTEN SAM

Vern said, "A hundred and fifty thousand, remember."

VOIL ARENT

SCARE ME

THINKING OF SELLING

"And of course we couldn't get

out of here," Vern pointed out.
"They've got us surrounded."
ME TO THESE RATS Q Q
SAM VERN PLEASE DON'T

I SAID, pointing to the fluttering paper in the rattling machine:

Vern shrugged impatiently.

I KNEW I SHOULDN'T

HAVE TRUSTED YOU, Arthur wept. THATS ALL I MEAN TO YOU EH

Vern said: "Well, Sam? Let's take the cash and get this thing over with. After all, he will have

over with. After all, he will have the best of treatment."

It was a little like selling your sister into white slavery, but what

else was there to do? Besides, I kind of trusted Vern.

"All right," I said. What Arthur said nearly

scorched the paper.

Vern helped pack Arthur up
for moving. I mean it was just
a matter of pulling the plugs out
and making sure he had a fresh
hattery, but Vern wanted to su-

a matter of pulling the plugs out and making sure he had a fresh battery, but Vern wanted to aupervise it himself. Because one of the little things Vern had up his sleeve was that he had found a spot for himself on the Major's payroll. He was now the official Prosthetic (Human) Maintenance Department Chief.

The Major said to me: "Ah, Dunlap. What sort of experience have you had?"

"Experience?"
"In the Navy. Your friend Engdahl suggested you might want to

join us here."

"Oh. I see what you mean." I shook my head. "Nothing that would do you any good, I'm afraid.

I was a yeoman."
"Yeoman?"
"Like a company clerk," I ex-

plained, "I mean I kept records

and cut orders and made out reports and all like that."

"Company clerk!" The eyes in the long horsy face gleamed. "Ah, you're mistaken, Dunlap! Why, that's just what we need. Our morning reports are in foul shape. Foul! Come over to HO. Lieu-

tenant Bankhead will give you a lift." "Lieutenant Bankhead?" I got an elbow in my ribs for

that. It was that girl Amy, standing alongside me. "I," she said, "am Licutenant Bankhead."

Well, I went along with her, leaving Engdahl and Arthur behind. But I must admit I wasn't

hind. But I must admit I wasn't sure of my reception.
Out in front of the hotel was a whole fleet of cars—three or four of them, at least. There was a big old Cadillec that looked like a

gangsters' car-thick glass in the windows, tires that looked like they belonged on a truck. I was willing to be tit was bulletproof and also that it belonged to the Major. I was right both times. There was a little MG with the top down, and a couple of light trucks. Every one of them was painted bright orange, and every one of them had the star-and-tart the contract of the contra

It took me back to old times all but the unmilitary color. Amy led me to the MG and pointed.

"Sit," she said.

I sat. She got in the other side and we were off.

It was a little uncomfortable on account of I wasn't just sure whether I ought to apolgize for making her take her clothes off. And then she tramped on the gas of that little car and I didn't think much about being embarrassed or about her black lace lingerie. I was only thinking about one thing—how to stay alive lone encess to

get out of that car

ıv

SEE, what we really wanted was

The rest of us probably would have been happy enough to stay in Lehigh County, but Arthur was getting restless.

He was a terrible responsibility, in a way. I suppose there were a hundred thousand people or so left in the country, and not more than forty or fifty of them were like Arthur-I mean if you want to call a man in a prosthetic tank a "person." But we all did. We'd got pretty used to him. We'd shipped together in the war-and survived together, as a few of the actual fighters did, those who were lucky enough to be underwater or high in the air when the ICBMs landed-and as few civilians did. I mean there warn't much

I mean there wasn't much chance for surviving, for anybody who happened to be breathing the open air when it happened. I mean you can do just so much about making a "cleam" H-bomb, and if you cut out the long-life fission products, the short-life ones get pretty deadly. Anyway, there wasn't much damages except of course that

everybody was dead. All the surface verselody was dead. All the surface vessels lost their crew. All the population of the cities were gone. And so then, when Arthur slipped on the gangplank coming into Newport News and broke his fool neck, why, we had the whole staff of the Sea Sprite to work on him. I mean what else did the

surgeons have to do?

d Of course, that was a long time ago.

But we'd stayed together, We headed for the farm country around Allentown Pennsylvania. because Arthur and Vern Engdahl claimed to know it pretty well. I think maybe they had some hope of finding family or friends. but naturally there wasn't any of that. And when you got into the inland towns, there hadn't been much of an attempt to clean them up. At least the big cities and the ports had been gone over, in some spots anyway, by burial squads. Although when we finally decided to move out and went to Phila-

delphia—
Well, let's be fair; there had been fighting around there after the big fight. Anyway, that wasn't

so very uncommon. That was one of the reasons that for a long time -four or five years, at any rate we stayed away from big cities.

we stayed away from big cities.
We holed up in a hig farmbouse in Lehigh County. It had its own generator from a little stream, and that took care of Arthur's power had been just crazy about stabing away food. There was enough to last a century, and that took care of the two of us. We appreciated that. We even took the old folks out and gave them a decent burial. I mean they'd all been in the family car, so we just had to too it to a grave pit and push in the form it to a grave pit and push in the family car, so we pit and push in the family car, so we pit and push in the family car, so we pit and push in the family car, so we pit and push in the family car, so we pit and push in the family car, so we pit and push in the family car, so we pit and push in the family care in the fami

The place had its own well, with an electric pump and a hot-water system—oh, it was nice. I was sorry to leave but, frankly, Arthur was driving us nuts.

We never could make the television work-maybe there weren't any stations near enough. But we pulled in a couple of radio stations pretty well and Arthur got a big charge out of listening to themsee, he could hear four or five at a time and I suppose that made him feel better than the rest of us. He heard that the bic cities

were cleaned up and every one of them seemed to want immigrants they were pleading, pleading all the time, like the TV-set and vacuum-cleaner people used to in the old days: they surranteed

we'd like it if we only came to live in Philly, or Richmond, or Baltimore, or wherever. And I guess Arthur kind of hoped we might find another pross. And then-well, Engdahl came up with this idea of an ocean liner.

It figured. I mean you get out in the middle of the ocean and what's the difference what it's like on land? And it especially appealed to Arthur because he wanted to do some surface sailing. He never had when he was real—I mean when he had arms and legs like anybody else. He'd gone right into the undersea service the

minute he got out of school.

And — well, sailing was what
Arthur knew something about and
I suppose even a proathetic man
wants to feel useful. It was like
Amy said: He could be hooked
up to an automated factory—

Or to a ship.

HQ for the Major's Temporary Millitary Government-that's what the sign said—was on the 91st floor of the Empire State Building, and right there that tells you something about the man. It mean you know how much power it takes to run those elevators all the way up to the top? But the Major must have liked being able to look down on everybody else. to arrive. She filled me in on him, to some degree. He'd been an absolute nothing before the war: but he had a reserve commission in the Air Force, and when things began to look sticky, they'd called him up and put him in a Missile Master control point, underground somewhere up around Ossining.

He was the duty officer when it happened, and naturally he hadn't noticed anything like an enemy aircraft, and naturally the antimissile missiles were still rusting in their racks all around the city: but since the place had been operating on sealed ventilation, the duty complement could stay there until the short half-life radioisotopes were themselves out

And then the Major found out that he was not only in charge of the fourteen men and women of his division at the center_he was ranking United States Military Establishment officer farther than the eye could see. So he best it, fast as he could, for New York, because what Army officer doesn't dream about being stationed in New York? And he set up his Temporary Military Government -and that was nine years ago.

If there hadn't been plenty to go around. I don't suppose he would have lasted a week-none of these city chiefs would have. But as things were, he was in on the ground floor, and as newcomers trickled into the city, his

boys already had things nicely organized.

It was a soft touch.

WELL, we were about a week setting settled in New York and things were looking pretty good. Vern calmed me down by pointing out that, after all, we had to sell Arthur, and hadn't we come out of it plenty okay?

And we had. There was no doubt about it. Not only did we have a fat price for Arthur, which was useful because there were a lot of things we would have to buy. but we both had jobs working for the Major. Vern was his specialist in the

care and feeding of Arthur and I was his chief of office routineand, as such, I delighted his fussy little soul, because by adding what I remembered of Navy protocol to what he was able to teach me of Army routine, we came up with as snarled a mass of red tape as any field-grade officer in the whole history of all armed forces had been able to accumulate. Oh, I tell you nobody sneezed in New York without a report being made out in triplicate, with eight endorsements.

Of course there wasn't anybody to send them to, but that didn't stop the Major. He said with determination: "Nobody's ever going to chew me out for non-compliance with regulations-even if I have to invent the regulations myself!"

We set up in a bachelor apartment on Central Park South-the Major had the penthouse; the whole building had been converted to barracks-and the first chance we got, Vern snaffled some transportation and we set out to find

See, the thing was that an ocean inter init easy to steal. I mean we'd scouted out the lay of the land before we ever entered the city tisself, and there were plenty of liners, but there wasn't one that looked like we could just jump in and sail it away. For that we meeded an organization. Since we didn't have one, the best thing to the west begrowthe Majors the Majors th

do was borrow the Major's. Vern turned up with Amy Bank-head's MG, and he also turned up with Amy. I can't say I was displeased, because I was beginning to like the girl, but did you ever try to ride three people in the seats of an MG? Well, the way to do it is by having one passenger's lap, which was the property of the property o

to the West Side. The Major's Topographical Section—one former billboard artist—had prepared road maps with little red-ink Xs marking the streets that were blocked, which was most of the streets; but we charted a course that would take us where we wanted to go. Thirty-fourth Street was open, and so was Fifth Avenue all of its length, so we scooted down Fifth, crossed over, got under the Elevated Highway and whined along untown toward the Efficie

"There's one," cried Amy, point-

I was on Vern's lap, so I was making the notes. It was a Fruit Company combination freighterpassenger vessel. I looked at Vern, and Vern shrugged as best he could, so I wrote it down; but it wasn't exactly what we wanted. No, not by a long shot.

CTILL, the thing to do was to Survey our resources, and then we could nick the one we liked hest. We went all the way up to the end of the big-ship docks, and then turned and came back down. all the way to the Battery. It wasn't pleasure driving, exactlyhalf a dozen times we had to get out the man and detour around impenetrable iams of stalled and empty cars-or anyway, if they weren't exactly empty, the people in them were no longer in shape to get out of our way. But we made it

We counted sixteen ships in d dock that looked as though theymight do for our purposes. We had to rule out the newer ones and the reconverted jobs. I mean, after all. U-235 tust lasts so lons, and you can steam around the world on a walnut-shell of it, or whatever it is, but you can't store it. So we had to stick with the ships that were powered with conventional fuel—and, on consideration, only oil at that.

But that left sixteen, as I say, Some of them, though, had suffered visibly from being left untended for nearly a decade, so that for our purposes they might as well have been abandoned in the middle of the Atlantic, we didn't have the equipment or ambition to do any great amount of salvage

mork The Empress of Britain would have been a pretty good bet, for instance except that it was lying at pretty nearly a forty-five-degree angle in its berth. So was the United States and so was the Caronia The Stockholm was straight enough, but I took a good look, and only one tier of portholes was showing above the water -evidently it had settled nice and even, but it was on the bottom all the same. Well, that mud sucks with a fine tight grip, and we weren't going to try to loosen ie.

All in all, eleven of the sixteen ships were out of commission just from what we could see driving by.

Vern and I looked at each other. We stood by the MG, while Amy sprawled her legs over the side THE KNIGHTS OF ARTHUR

d and waited for us to make up our

hat- minds.

it. "Not good, Sam," said Vern,
hire looking worried.

I said: "Well, that still leaves five. There's the Vulcania, the Cristohal..."

"Too small."

Queen."

"All right. The Manhattan, the Liberté and the Queen Elizabeth." Amy looked up, her eyes gleaming, "Where's the question?" she demanded, "Naturally, it's the

I tried to explain. "Please, Amy. Leave these things to us, will

"But the Major won't settle for

anything but the best!"
"The Major?"

I GLANCED at Vern, who wouldn't meet my eye. "Well;" I said, "look at the problems, Amy. First we have to check it over. Maybe it's been burned out-how do we know? Maybe the channel isn't even deep enough to float it any more — how do we know? Where are we going to get the oil for it?"

"We'll get the oil," Amy said cheerfully.

"And what if the channel isn't deep enough?"

"She'll float," Amy promised.

"At high tide, anyway. Even if
the channel hasn't been dredged in
ten years."

I shrugged and gave up. What

was the use of arguing?

We drove back to the Queen

We drove back to the Queen Elizabeth and I had to admit that there was a certain attraction about that big old dowager. We all got out and strolled down the pier, looking over as much as we could see. The pier had never been

cleaned out. It bothered me a little

—I mean I don't like skeletons
much—but Amy didn't seem to
mind. The Queen must have just
docked when it happened, because
you could still see bony queues,
as though they were waiting for

customs impection.

Some of the bags had been opened and the contents scattered around—naturally, somebody was bound to think of looting the Queen But there were as many that hadn't been touched as that had been opened, and the whole thing had the look of an amateur attempt. And that was all to the good, because the fewer persons who had boarded the Queen in the decide since it happened, the more chance of our finding it in usable

shape.

Amy saw a gangplank still up, and with cries of girlish glee ran aboard.

I plucked at Vern's sleeve.
"You," I said. "What's this about
what the Major won't settle for
less than?"

He said: "Aw, Sam, I had to tell her something, didn't I?" "But what about the Major— He said patiently: "You don't understand. It's all part of my plan, see? The Major is the big thing here and he's got a birthday coming up next month. Well, the way I put it to Anny, we'll fix him up with a yacht as a birthday present, see? And, of course, when it's all fixed up and ready to lift anchor—"

I said doubtfully: "That's the hard way, Vern. Why couldn't we just sort of get steam up and take off?"

He shook his head. "That is the hard way. This way we get all the help and supplies we need, un-

I shrugged. That was the way it was, so what was the use of arguing?

But there was one thing more

on my mind. I said: "How come Amy's so interested in making the Major happy?" Vern chortled. "Jealous, eh?"

"I asked a question!"
"Calm down, boy. It's just that
he's in charge of things here so

naturally she wants to keep in good with him."

I scowled "I keep hearing stories about how the Major's chief interest in life is women.

You sure she isn't ambitious to be one of them?"

He said: "The reason she wants to keep him happy is so she wor!"

GALAXY SCIENCE EXCTION

be one of thom?

THE name of the place was Bayonne. Vern said: "One of them's sof

to have oil, Sam. It has to."

"Sure," I said.

"There's no question about it. Look, this is where the tankers came to discharge oil. They'd come in here, pump the oil into the re-

finery tanks and-" "Vern." I said. "Let's look, shall

we?" He shrugged, and we hopped off the little outboard motorboat onto a landing stage. The tankers towered over us, rusty and screeching as the waves rubbed them

against each other. There were fifty of them there at least, and we poked around them for hours. The hatches were rusted shut and unmanageable, but you could tell a lot by sniffing Gasoline odor was out; smell of seaweed and dead fish was out: but the heavy, rank smell of fuel oil that was what we were sniffing for. Crews had been aboard these ships when the missiles

came, and crews were still aboard. Beyond the two-part superstructures of the tankers, the skyline of New York was visible. I looked up, sweating, and saw the Empire State Building and imagined Amy up there, looking

out toward us She knew we were here. It was her idea. She had scrounged up a naval engineer, or what she called a naval engineer-he had once been a stoker on a ferryboat. But he claimed he knew what he was talking about when he said the only thing the Queen needed to make 'er go was oil. And so we left him aboard to tinker and polish, with a couple of helpers

Amy detached from the police force and we tackled the oil problem Which meant Bayonne, Which

was where we were. It had to be a tanker with at least a fair portion of its cargo intact, because the Queen was a

thirsty creature, drinking fuel not by the shot or gallon but by the ton "Sasam! Sam Dunlap!"

I looked up, startled. Five ships away, across the U of the mooring. Vern Engdahl was bellowing at me through cupped hands "I found it!" he shouted. "Oil,

lots of oil! Come look!" I clasped my hands over my head and looked around. It was a long way around to the tanker Vern was on hopping from deck to deck, detouring around open stretches.

I shouted: "I'll get the boat!" He waved and climbed up on the rail of the ship, his feet dangling over, looking supremely happy and pleased with himself. He lit a cigarette, leaned back against the upward sweep of the rail and waited

It took me a little time to get hock to the host and a little more time than that to get the damn motor started. Vern! "Let's not take that lovey little twelve horsepower. Sam," he'd said reasonably "The twenty-five's more what we need!" And maybe it was, but none of the motors had been started in most of a decade, and the twenty-five was just that much

harder to start now I struggled over it, swearing, for twenty minutes or more.

The tanker by whose side we had tied up began to swing toward me as the tide changed to outgoing.

FOR a moment there, I was counting seconds, expecting to have to make a jump for it before the big red steel flank squeezed the little outboard flat against the oiles.

But I got it started-just about in time. I squeezed out of the trap with not much more than a yard to spare and threaded my way into open water.

There was a large, threatening sound like an enormous slow cough I rounded the stern of the last

tanker between me and open water, and looked into the eye of a fire-breathing dragon Vern and his cigarettes! The tanker was loose and ablaze, bearing down on me with the slow drift of the ebbing tide From the hatches on the forward deck two fountains of fire spurted up and out, like enormous nostrils spouting flame. The hawsers had been burned through, the ship was adrift I was in its nath-

And so was the frantically splashing figure of Vern Engdahl.

trying desperately to swim out of the way in the water before it. What kept it from blowing up in our faces I will never know unless it was the pressure in the tanks forcing the flame out: but

it didn't. Not just then. Not until I had Engdahl aboard and we were out in the middle of the Hudson storing backs and then it went up all right, all at once, like a missile or a volcano; and there had been fifty tankers in that one mooring but there weren't any any more or not in shape for us

I looked at Engdahl. He said defensively: "Honest, Sam. I thought it was oil. It smelled like oil. How was I to know..."

"Shut up." I said.

to mee

He shrugged injured "But it's all right, Sam. No fooling, There are plenty of other tankers around Plenty Down toward the Ambovs, maybe moored out in the shopped There must be We'll find them "



THE KNIGHTS OF ARTHUR

"No," I said. "You will."

And that was all I said, because I am forgiving by nature:

cause I am forgiving by nature; but I thought a great deal more. Surprisingly, though, he did find a tanker with a full load, the

very next day.

It became a question of get-

ting the tanker to the Queen. I left that part up to Vern, since he claimed to be able to handle it.

It took him two weeks. First two should not be transer, then it was finding tomove, then it was finding someone to pilot the tog. Then it was more than the state of the first state of

Oh, it was work and no fooling. I enjoyed it very much, because I didn't have to do it.

BUT I had enough to keep me busy at that. I found a man who claimed he used to a radio engineer. And if he was an engineer, I was Albert Einstein's mother, but at least he knew which and of a soldering iron was hot. There was no need for any great skill, since there weren't going to be very many vessels to communicate with.

nicate with. Things began to move. The advantage of a ship like the Queen, for our purposes, was that the thing was pretty well automated to start out with. I mean never mind what the senfaring unions required in the way of fiesh-and-blood personnel. What it came down to was that one man in the bridge or wheelhouse could pretty well make any part of the ship so or not so.

The engine-room telegraph want hooked up to control the engines, no. But the wiring diagram needed only a few little changes to get the same effect, one of the control that was a summary of the control to the control

Our genius of the soldering ror replaced flesh and blood with some wiring and, presto, we had centralized engine control.

tralized engine control.

The steering was even easier.

Steering was a matter of electronic control and servomotors to begin with. Windjammers in the old movies might have a man lashed to the wheel whose muscle power turned the rudder, but believe me, a big superliner doesn't. The rudders weight as much as any old to stern; you have to have motors turn them; and it was only a

matter of getting out the old soldering iron again.

By the time we were through, we had every operational facility of the Queen hooked up to a single panel on the bridge.

Engdahl showed up with the oil tanker just about the time we got the wiring complete. We rigged up a nump and filled the bunkers till they were topped off full. We guessed, out of hope and ignorance. that there was enough in there to take us half a dozen times around the world at normal cruising speed. and maybe there was. Anyway, it didn't matter, for surely we had enough to take us anywhere we wanted to go, and then there would be more.

We crossed our fingers, turned our ex-ferry-stoker loose, pushed a button-

Smoke came out of the stacks. The antique screws began to turn over. Astern, a sort of hump of muddy water appeared. The Queen quivered underfoot. The mooring hawsers creaked and sang.

"Turn her off!" screamed Engdahl. "She's headed for Times Square!"

Well, that was an exaggeration, but not much of one; and there wasn't any sense in stirring up the bottom mud. I pushed buttons and the screws stopped. I pushed another button, and the hig engines quietly shut themselves off. and in a few moments the stacks

stopped puffing their black smoke. The ship was alive.

Solemnly Engdahl and I shook hands. We had the thing licked. All, that is, except for the one small problem of Arthur.

THE thing about Arthur was they had put him to work.

It was in the power station, just as Amy had said, and Arthur didn't like it. The fact that he didn't like it was a splendid reason for staying away from there, but I let my kind heart overrule my good sense and paid him a visit.

It was way over on the East Side, miles and miles from any civilized area, I borrowed Amy's MG. and borrowed Amy to go with it, and the two of us packed a picnic lunch and set out. There were reports of deer on Avenue A, so I brought a rifle, but we never saw one; and if you want my opinion, those reports were nothing but wishful thinking. I mean if people couldn't survive. how could deer?

We finally threaded our way through the clogged streets and parked in front of the power station.

"There's supposed to be a

guard." Amy said doubtfully. I looked I looked pretty carefully, because if there was a guard, I wanted to see him. The Major's orders were that vital defense installations-such as the power station, the PX and his own berracks building—were to be guarder against trespassers on a shoot-onsight basis and I wanted to missight basis and I wanted to missight basis and I wanted to missight basis and I wanted to missigned by the Major's own hand. But we couldr't find him. So But we own was well and was walked in through the big door, perceived and only listened for sounds of machinery and walked in that directly in the directly and walked in the directly and walked

And then we found him; he was sound asleep. Amy, looking indignant, shook him awake.

nant, shook him awake.

"Is that how you guard military property?" she scolded. "Don't you know the penalty for sleep-

The guard said something irritable and unhappy. I got her off his back with some difficulty, and we located Arthur

ing at your post?"

Picture a shiny four-gallon to mato can, with the label stripement off, hanging by wire from the flashing-light pensels of an electric computer. That was Arthur. The shiny metal cylinder was his prosthetic tank; the wires were the leads that served him for flags ears and mouth; the glittering panel was the control center of the Consolidated Edison Eastside Power Plant No. 1.

"Hi, Arthur," I said, and a sudden ear-splitting thunderous hiss was his way of telling me that he knew

I was there.

I didn't know exactly what it

was he was trying to say and I didn't want to; fortune spares me few painful moments, and I accept with gratitude the ones it does. The Major's boys hadn't bothered to bring Arthur's typewriter along —I mean who cares what a generator-governor had to offer in the way of conversation? — so all he could do was blow off steam from the distant boilers.

WELL, not quite all. Light flashed; a bucket conveyor began crashingly to dump loads of coal; and an alarm gong began to pound.

"Please, Arthur," I begged.
"Shut up a minute and listen, will
you?"

More lights. The gong rapped half a dozen times sharply, and stopped.

I said: "Arthur, you've got to

trust Vern and me. We have this thing figured out now. We've got the Queen Elizabeth—" A shattering hiss of steam meaning delight this time, I thought. Or anyway hoped.

"—and it's only a question of time until we can carry out fle plan. Vern says to apologize for not looking in on you." hiss—"but he's been busy. And after all, you know it's more important to get everything ready so you can get out of this place, right?"

"Psst," said Amy. She nodded briefly past my shoulder. I looked, and there was the guard, looking sleepy and surly and definitely suspicious

I said heartily: "So as soon as I fix it up with the Major, we'll arrange for something better for vou. Meanwhile, Arthur, vou're doing a capital job and I want you to know that all of us loval New York citizens and public servants

deeply appreciate-" Thundering crashes, bangs, gongs, hisses, and the scream of a steam whistle he'd found some-"So long, Arthur," I said, and

where. Arthur was mad

we got out of there-just barely in time. At the door, we found that Arthur had reversed the coal scoops and a growing mound of it was pouring into the street where we'd left the MG parked. We got the car started just as the heap was beginning to reach the humpers, and at that the paint would never again be the same. Oh, ves, he was mad, I could

only hope that in the long run he would forgive us, since we were acting for his best interests, after all.

Anyway, I thought we were.

STILL, things worked out pretty well-especially between Amy and me. Engdahl had the theory that she had been dodging the Major so long that anybody looked good to her, which was hardly

flattering. But she and I were getting along right well.

She said worriedly: "The only thing, Sam, is that, frankly, the Major has just about made up his mind that he wants to marry me-"

"He is married!" I yelped.

"Naturally he's married, He's married to - so far - one hundred and nine women. He's been hitting off a marriage a month for a good many years now and, to tell you the truth, I think he's got the habit. Anyway, he's got his eye on me."

I demanded jealously: "Has he said anything?" She picked a sheet of onionskin

paper out of her bag and handed it to me It was marked Ton Secret, and it really was, because it hadn't gone through his regular office-I knew that because I was his regular office. It was only two lines of text and sloppily typed at that:

Lt. Amy Bankhead will report to HO at 1700 hours 1 July to carry out orders of the Commanding Officer.

The first of July was only a week away. I handed the orders back to her.

"And the orders of the Commanding Officer will be - " I

wanted to know. She nodded. "You guessed it." I said: "We'll have to work

fast."

ON the thirtieth of June, we invited the Major to come

aboard his palatial new yacht.

"Ah, thank you," he said gratefully, "A surprise? For my birthday? Ah, you loyal members of
my command make up for all that
I've lost—all of it!" He nearly
went.

I said: "Sir, the pleasure is all ours," and backed out of his presence. What's more, I meant every

It was a select party of slightly over a hundred. All of the wives were there, barring twenty or thirty who were in disfavor-still, that left over eighty. The Major brought half a dozen of his favorite officers. His bodyguard and our crew added up to a total of thirty men.

We were set up to feed a hundred and fifty, and to provide liquor for twice that many, so it looked like a nice friendly brawl. I mean we had our radio operator handing out highballs as the guests stepped on board. The Major was touched and delighted; it was exactly the kind of party to liked.

He came up the gangplank with his face one great beaming smile. 'Eatt D'rink'! he cried. "Ah, and be merry!" He stretched out his hands to Amy, standing by behind the radio op. "For tomorrow we wed," he added, and sentimentally kissed his proposed bride.

I cleared my throat. "How about

inspecting the ship, Major?" I in-

terrupted.

"Plenty of time for that, my boy," he said. "Plenty of time for that." But he let go of Amy and looked around him. Well, it was worth looking at. Those Englishmen really knew how to build a luxury line. God rest them.

The girls began roaming around.

It was a hot day and late afternoon, and the girls began discarding jackets and boleroe, and that
began to annow the Major.

began to annoy the Major.

"Ah, cover up there!" he ordered one of his wives. "You too
there, what's-your-name. Put that
blesses back on!"

It gave him something to think about. He was a very jealous man, Amy had said, and when you step to think about the was a very jealous man. Amy had said, and when you step to think about it, a jealous man with a hundred and nine wives to be jealous of really has a job. Anyway, he was busy watching his wives and keeping his military cabinet and his bodyguard busy to notice when I tipped the high sign to Vern and took off.

VI

IN Consolidated Edison's big
power plant, the guard was
friendly. "I hear the Major's over
on your boat, pal. Big doings. Got
a lot of the girls there, hey?"
He bent, sniegering, to look at

my nass

GALAYY SCIENCE FICTION

"That's right, pal," I said, and slugged him.

a slagged hum.

Arthur acreamed at me with a strill blast of steam as I came in. But only once. I wast there for conversation. I began ripping apart his comfy little home of steel braces and copper wires, and it didn't take much more than a minute before I had him free. And animute before I had him free. And although the best out the guard. I hadn't done it very well, and it was just about the time I had Arthur's steel case tucked under my arm had. I hadn't been a veller and a fine and a fine a

bellowing from down the stairs.

The guard had got free.

"Keep calm, Arthur!" I ordered
sharply. "We'll get out of this,
don't you worry!"

But he want't worried, or anyway didn't show it aime he way didn't show it aime he couldn't. I was the one who was worried. I was up on the second floor of the plant, in the control center, with only one stainway peing down that I lnew about, and than one thoroughly guarried by a men with a gruide against me. Me. I had Arthur, and no weapon, and I hadn't a doubt in the world that there were othori interfer around and that my friend would be

around and that my friend would have them after me before long. Problem. I took a deep breath and swallowed and considered jumping out the window. But it

wasn't far enough to the ground.

more than two of them. With Arthur dragging me down on onside, I hurried, fast as I could, along the steel galleries that surrounded the biggest boiler. It was a nice choice of alternatives—if I stayed quiet, they would find me; if I ran, they would hear me, and

then find me.

But ahead there was — what?

Something. A flight of stairs, it looked like, going out and, yes, up.

Up? But I was already on the second floor.

"Hey, you!" somebody bellowed from behind me.

I didn't stop to consider. I ran.

It wasn't steps, not exactly; it was a chain of coal scoops on a long

derrick arm, a moving bucket arrangement for unloading fuel from barges. It did go up, though, and more important it went out. The bucket arm was stretched across the clogged roadway below to a loading tower that hung over the water.

If I could get there, I might be able to get down. If I could get down-yes, I could see it; there were three or four mahogany motor launches tied to the foot of the tower.

And nobody around.

I looked over my shoulder, and didn't like what I saw, and scuttled up that chain of enormous buckets like a roach on a washboard, one hand for me and one hand for Arthur. THANK heaven, I had a good lead on my pursuers—I needed it. I was on the bucket chain while they were still almost a city block behind me, along the galleries. I was halfway across the roadway, afraid to look down, before they reached the butt end of the chain.

Clash-clatter. Clank! The bucket under me jerked and clattered and nearly threw me into the street. One of those jokers had turned on the conveyor! It was a good trick, all right, but not quite in time. I made a flying jump and I was on the tower.

I didn't stop to thumb my nose

at them, but I thought of it.

I was down those steel steps,
breathing like a spouting whale,
in a minute flat, and jumping out
across the concrete, coal-smeared
yard toward the moored launches,
Quickly enough, I guess, but with
nothing at all to spare, because although I hadr't seen anyone
there, there was guard.

He popped out of a doorway, blinking foolishly; and overhead the guards at the conveyor belt were screaming at him. It took him a second to figure out what was going on, and by that time I was in a launch, cast off the rope, kicked it free, and fumbled for the startins button.

It took me several seconds to realize that a rope was required, that in fact there was no button; and by then I was floating yards away, but the pudgy pop-eyed guard was also in a launch, and he didn't have to fumble. He knew. He got his motor started a fraction of a second before me, and there he was, coming at me, set to ram. Or so it looked. I wrenched at the wheel and

brought the boat hard over; but he swerved too, at the last moment, and brought up something that looked a little like a spear and a little like a sickle and turned out to be a boathook. I ducked, just in time. It sizzled over my head as he swung and crashed against the windshield. Hunks of safety glass splashed out over the forward deck, but better that than

Boathooks, hey? I had a boathook too! If he didn't have another weapon, I was perfectly willing to play; I'd been sitting and taking it long enough and I was very much attracted by the idea of fighting back. The guard recovered his belance, swore at me, fought

my head.

scious.

the wheel around and came back.

We both curved out toward the
center of the East River in intersecting arcs. We closed. He
swung first. I ducked—
And from a crouch, while he

was off balance, I caught him in the shoulder with the hook. He made a mighty splash.

He made a mighty splash.

I throttled down the motor long enough to see that he was still con-

"Touché, buster," I said, and set course for the return trip down around the foot of Manhattan, back toward the Orean

I T took a while, but that was all right; it gave everybody a nice long time to get plastered. I sneaked aboard, carrying Arthur, and turned him over to Ven. Then I rejoined the Major. He was making an inspection tour of the ship—what he called an inspection, other his feature.

He peered into the engine rooms and said: "Ab. fine."

He stared at the generators that were turning over and nodded when I explained we needed them for power for lights and everything and said: "Ah, of course." He opened a couple of state-

room doors at random and said:
"Ah, nice."

And he went up on the flying bridge with me and such of his

bridge with me and such of his officers as still could walk and said: "Ah."

Then he said in a totally different tone: "What the devil's the matter over there?"

He was staring east through the muggy haze. I saw right away what it was that was bothering him —easy, because I knew where to look. The power plant way over on the East Side was billowing smoke.

"Where's Vern Engdahl? That

"You mean Arthur?"

"I mean that brain in a bottle.

It's Engdahl's responsibility, you know!"

Vern came up out of the wheelhouse and cleared his throat. "Major," he said earnestly, "I think there's some trouble over there. Maybe you ought to go

"Trouble?"

"I, uh, hear there've been power failures," Vern said lamely. "Don't you think you ought to inspect it?

you think you ought to inspect it?

I mean just in case there's something serious?"

The Major stared at him
frostily, and then his mood

changed. He took a drink from the glass in his hand, quickly finishing it off.

"Ah," he said, "hell with it. Why spoil a good party? If there are going to be power failures.

are going to be power failures, why, let them be. That's my motto!"

Vern and I looked at each other.

He shruwsed slightly, meaning.

well, we tried. And I shrugged slightly, meaning, what did you expect? And then he glanced upward, meaning, take a look at what's there.

But I didn't really have to look because I heard what it was. In fact, I'd been hearing it for some time. It was the Major's entire air force — two helicopters, swirling around us at an average allitude of a hundred fort or so. They showed up bright against the gathering clouds overhead, and I looked at them with considerable interest partly because I considered it an even-money bet that one of them would be playing crumple-fender with our stacks, partly because I had an idea that they were not there solely for show.

there solely for show.

I said to the Major: "Chief, aren't they coming a little close? I mean it's your ship and all, but what if one of them takes a snill

He grinned. "They know better,"
he bragged. "Ah, besides, I want
them close. I mean if anything

went wrong"

I said, in a tone that showed as much deep hurt as I could manage: "Sir, what could go wrong?"

"Oh, you know." He patted my shoulder limply. "Ah, no offense?" he asked.

I shook my head. "Well," I said,
"let's go below."

A LL of it was done carefully,
carefully as could be. The

A carefully as could be The only thing was, we forgot about the typewriters. We got everybody, or as near as we could, into the Grand Salon where the food was, and right there on a table at the end of the hall was one of the typewriters clacking away. Vern had rigged them up with rolls of paper instead of sheets, and maybe that was ingenious, but it was be that was ingenious, but it was

g also a headache just then. Because t the typewriter was banging out:

LEFT FOUR THIRTEEN
FOURTEEN AND TWENTYONE BOILERS WITH A FULL
HEAD OF STEAM AND THE
SAFETY VALVES LOCKED
BOY I TELL YOU WHEN
THOSE THINGS LET GO
YOURE GOING TO HEAR A
NOISE THATIL. KNOCK

YOUR HAT OFF
The Major inquired politely:

"Something to do with the ship?"
"Oh, that," said Vern. "Yeah.
Just a little, uh, something to do
with the ship. Say, Major, here's
the bar. Real scotch, see? Look
at the label!"

The Major glanced at him with faint contempt—well, he'd had the pick of the greatest collection of high-priced liquor stores in the world for ten years, so no wonder. But he allowed Vern to press a driely on him

And the typewriter kept rattling:
LOOKS LIKE RAIN ANY
MINUTE NOW HOO BOY IM
GLAD I WONT BE IN THOSE
WHIRLYBIRDS WHEN THE
STORM STARTS SAY VERN
WHY DONT YOU EVER ANSWER ME Q Q ISN'T IT
ABOUT TIME TO TAKE

OFF XXX I MEAN GET UN-DER WEIGH Q Q Some of the "clerks, typists, domestic personnel and others"—that was the way they were listed on the T/O; it was only coincidence that the Major had married them all—were staring at the typewriter.

"Drinks!" Vern called nervously.
"Come on, girls! Drinks!"

THE Major poured himself a stiff shot and asked: "What is that thing? A teletype or some-

thing?"
"That's right," Vern said, trailing after him as the Major wan-

ing after him as the Major wandered over to inspect it.

I GIVE THOSE BOILERS
ABOUT TEN MORE MIN-

ABOUT TEN MORE MIN-UTES SAM WELL WHAT ABOUT IT Q Q READY TO SHOVE OFF Q Q The Major said, frowning faint-

The Major said, frowning faintly: "Ah, that reminds me of something. Now what is it?"

"More scotch?" Vern cried.

"Major, a little more scotch?"

The Major ignored him, scowling, One of the "clerks, typists" said: "Honey, you know what it is? It's like that pross you had, remember? It was on our wedding night, and you'd just got it, and you kept asking it to tell you liversite."

The Major snapped his fingers, "Knew I'd get it," he glowed. Then abruptly he scowled again and turned to face Vern and me. "Sav—"he hecan

I said weakly: "The boilers."

The Major stared at me, then glanced out the window. "What boilers?" he demanded. "It's just

a thunderstorm. Been building up all day. Now what about this? Is

all day. Now what about this? Is that thing—" But Vern was paying him no

attention. "Thunderstorm?" he yelled. "Arthur, you listening? Are the helicopters gone?" YESYESYES

YESYESYES
"Then shove off, Arthur! Shove

The typewriter rattled and slammed madly.

The Major yelled angrily:
"Now listen to me, you! I'm
asking you a question!"

But we didn't have to answer, because there was a thrumming and a throbbing underfoot, and then one of the "clerks, typists" screamed: "The dock!" She pointed at a porthole. "It's movine!"

WELL, we got out of therebarely in time. And then it was up to Arthur. We had the whole ship to roam around in and there were plenty of places to bide. They had the whole ship to search. And Arthur was the whole ship.

Because it was Arthur, all right, brought in and hooked up by Vern, attained to his greatest dream and ambition. He was skipper of a superliner, and more than any skipper had ever been—the ship was his body, as the prosthetic tank had never been; the keel belly, the screws his feet, the en-



gines his heart and lungs, and every moving part that could be hooked into central control his many many hands.

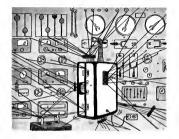
Search for us? They were under they could move at all! Fire Control washed them with salt water hoses, directed by Arrhur's brain. Watertight doors, proof against sinking, locked them away from us at Arthur's whim.

The big bull whistle overhead by the salt was a clamping Gabriel.

and the ship's bells tinkled and

clanged. Arthur backed that enormous ahip out of its berth like a racing acull on the Schuylkill. The four giant screws lashed the water into white foam, and then the thin mud they sucked, up into tan; and the ship backed, sweved, lashed the water, stopped, and staggered cravity forward.

Arthur brayed at the Statue of Liberty, tooted good-by to Staten Island, feinted a charge at Sandy Hook and really laid back his ears and raced once he got to deep



water past the moored lightship. We were off!

Well, from there on, it was easy, We let Arthur have his fun with the Major and the bodyguardsand by the sodden, whimpering shape they were in when they came out, it must really have been fun for him. There were just the three of us and only Vern and I had guns—but Arthur had the Queen Elizabeth, and that put the odds on our side.

We gave the Major a choice:

row back to Coney Island — we offered him a boat, free of charge —or come along with us as cabin boy. He cast one dim-eyed look at the hundred and nine "clerks, typists" and at Arny, who would never be the hundred and tenth. And then he shrugged and, game loser, said: "Ah, why not? Till come along."

A ND why not, when you come to think of it? I mean ruling a city is nice and all that, but a sea voyage is a refreshing change.

And while a hundred and nine to one is a respectable female-male ratio, still it must be wearing; and eighty to thirty isn't so bad, either. At least, I guess that was what was in the Major's mind. I know it was what was in mine.

And I discovered that it was in Amy's, for the first thing she did was to march me over to the typewriter and say: "You've had it, Sam. We'll dispose with the wedding march-just get your friend

Arthur here to marry us."
"Arthur?"
"The captain." she said. "We're

on the high seas and he's empowered to perform marriages."

Vern looked at me and shrugged, meaning, you asked for this one, boy. And I looked at him and shrugged, meaning, it could be

worse.

And indeed it could. We'd got our ship; we'd got our ship's company — because, naturally, there

wasn't any use stealing a big ship for just a couple of us. We'd had to manage to get a sizable colony aboard. That was the whole idea. The world in fact was ours. It

could have been very much worse indeed, even though Arthur was laughing so hard as he performed the ceremony that he jammed up all his keys.

PREDERIK PORI

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THE HATED

By PAUL FLEHR

After space, there was always one more river to cross . . . the

Illustrated by DICK FRANCES

No name of any kind. Not even an indication that it had ever had one. All it said on the outside was:

Cafe EAT Cocktails

which doesn't make a lot of sense. But it was a bar. It had a big TV set going ya-ta-ta ya-ta-ta in three glorious colors, and a jukebox that tried to drown out the TV with that lousy music they play. Anyway, it wasn't a kid hangout. I kind of like it. But I wasn't supposed to be there at all; it's in to contract. I was supposed to stay in New York and the New Englead states.

Cafe-EAT-Cocktails was right across the river. I think the name of the place was Hoboken, but I'm not sure. It all had a kind of dreamy feeling to it. I was— Well I couldn't even remember minute I was downtown New York, looking across the river. I did that a lot. And then I was there. I don't remember crossing

the river at all.

I was drunk, you know.

YOU know how it is? Double bourbons and keep them coming. And after a while the bartender stops bringing me the ginger ale because gradually I forget to mix them. I got pretty loaded long before I lat. New York I realize

that. I guess I had to get pretty loaded to risk the pension and II. Used to be I didn't drink much, but now, I don't know, when I have one drink, I get to thinking about 5am and Wally and Chowderhead and Gilvey and the captain. If I don't drink, I think about them, too, and then I take a drink. And that leads to another drink. And that leads to another drink. The control of the

amount, but you can't blame me.

I always get a girl someplace. Usually they aren't much and this one wasn't either. I mean she was probably somebody's mother. She was around thirty-five and not so bad, though she had a long scar under her ear down along he throat to the little round spot where her larynx was. It wasn't wally. She smelled nice-while I

going there. I remembered one could still smell, you know-and minute I was downtown New she didn't talk much. I liked that. York looking across the river. I Only-

Well, did you ever meet somebody with a nervous cough? Like when you say something funny a little funny, not a big yock they don't laugh and they don't stop with just smiling, but they sort of cough? She did that I began to itch. I couldn't help it. I asked her, to ston, it.

She spilled her drink and looked at me almost as though she was scared—and I had tried to say it quietly, too.

"Sorry" she said, a little apery.

a little scared. "Sorry. But you don't have to--"
"Forget it."
"Sure. But you asked me to sit down here with you, remember?

If you're going to—"
"Forget it!" I nodded at the bartender and held up two fingers.
"You need another drink," I said.
"The thing is," I said, "Gilvey used to do that."

"What?"
"That cough."

vev."

She looked puzzled, "You mean like this?"

"Goddam it, stop it!" Even the bartender looked over at me that time. Now she was really mad, but I didn't want her to go away. I said, "Gilvey was a fellow who went to Mars with me. Pat Gil-

"Oh." She sat down again and

leaned across the table, low. "Mary"

THE bartender brought our drinks and looked at me suspiciously, I said, "Say, Mac, would you turn down the air condition

"My name isn't Mac No."

"Have a heart. It's too cold in hore !

"Sorry." He didn't sound sorry. I was cold I mean that kind of weather, it's always cold in those places Vou know around New York in August? It hits eighty, eighty-five, ninety. All the places have air-conditioning and what they really want is for you to wear a shirt and tie.

But I like to walk a lot You would, too, you know. And you can't walk around much in long pants and a suit coat and all that stuff. Not around there. Not in August. And so then, when I went into a her, it'd have one of those built-in freezers for the used-car salesmen with their dates, or maybe their wives, all dressed up. For what? But I froze

"Mers," the girl breathed. "Mars."

I began to itch again, "Want to dence?" "They don't have a license."

she said, "Byron, I didn't know you'd been to Mars! Please tell me about it"

"It was all right," I said.

That was a lie

She was interested. She forgot to smile. It made her look nicer She said. "I knew a man-my brother-in-law-he was my husband's brother-I mean my ex-hus-

hand_" "I get the idea."

"He worked for General Atomic In Rockford, Illinois. You know

where that is?"

"Sure." I couldn't go there, but I knew where Illinois was "He worked on the first Mars

ship. Oh fifteen years ago wasn't it? He always wanted to go himself, but he couldn't pass the tests." She stopped and looked at me. I knew what she was thinking But I didn't always look this way.

you know. Not that there's anything wrong with me now, I mean, but I couldn't pass the tests any more. Nobody can, That's why we're all one-trippers. I said. "The only reason I'm

shaking like this is because I'm cold." It wasn't true, of course, It was

that cough of Gilvey's I didn't like to think about Gilvey, or Sam or Chowderhead or Wally or the captain. I didn't like to think about any of them. It made me chake

You see we couldn't kill each other. They wouldn't let us do that. Before we took off, they did something to our minds to make sure. What they did, it doesn't last forever. It lasts for two years and then it wears off. That's long enough, you see, because that gets you to Mars and back; and it's plenty long enough, in another way, because it's like a straitjacket.

You know how to make a baby cry? Hold his hands. It's the most basic thing there is. What they did to us so we couldn't kill each other, it was like being tied up, like having our hands held so we couldn't get free. Well. But two years was long enough. Too long. The battender came over and

said, "Pal, I'm sorry. See, I turned the air-conditioning down. You all right? You look so—" I said. "Sure. I'm all right."

He sounded worried. I hadn't even heard him come back. The girl was looking worried, too, I guess because I was shaking so hard I was spilling my drink. I put some money on the table without even counting it.

"It's all right," I said. "We were just going."
"We were?" She looked con-

"We were?" She looked confused. But she came along with me. They always do, once they find out you've been to Mars.

IN the next place, she said, between trips to the powder room, "It must take a lot of courage to sign up for something like that. Were you scientifically inclined in school? Don't you have

to know an newful lot to be a spaceflyer? Did you ever see any of those little monkey characters they say live on Mars? I read an article about how they lived in little cities of pup-tents or something like that-only they didn't make them, they grew them. Funnyl Ever see those? That trip must have been a real drag. I bet. What is it, nine monthe? You couldn't now the published of the published to man and the seed of the published to man and the seed of the seed of the country lived to the seed of the country lived to the seed of the seed

or anything?"

She giggled, and that reminded her, so she went to the powder room again. I thought about getting up and leaving while she was gone, but what was the use of that? I'd only pick up somebody else.

I'd only pick up somebody else. It was nearly midnight A couple of minutes wouldn't hurt. I reached in my pocket for the little box of pills they give us—it isn't refillable, but we get a new prescription in the mail every month, along with the pension check. The label

CAUTION

Use only as directed by physician. Not to be taken by persons suffering heart condition, digestive upset or circulatory disease. Not to be used in conjunction with alcoholic beverates.

I took three of them. I don't like to start them before midnight, but anyway I stopped shak-

ing.

I closed my eyes, and then I
was on the ship again. The noise
in the bar became the noise of
the rockets and the air washers
and the sludge sluicers. I began
to sweat, although this place was
airconditioned too.

I could hear Wally whisting to himself the way he did, the sound muffled by his oxygen mask and drowned in the rocket noise, but still perfectly audible. The tune was Sophisticated Ledy. Sometimes it was Easy to Love and sometimes Chasing Shedows, but mostly Sophisticated Lady. He

was from Juilland.
Somebody sneezed, and it
sounded just like Chowderhead
sneezing, You know how everybody sneezes according to his own
individual style? Chowderhead
had a ladylike little sneeze; it
went huter, sred quick, all through
went huter, sred quick, all through
captain went Hrassah, Wally was
Hutch-sh. Sam didn't sneeze much,
but he sort of coughed and

sprayed, and that was worse.
Sometimes I used to think about killing Sam by tying him down and having Wally and the captain sneeze him to death. But that was a kind of a joke, naturally, when I was feeling good. Or pretty

good. Usually I thought about a kinle for Sam For Chowderhead it was a gun, right in the belly, one shot. For Wally it was a tornmy gun—just stitching him up and down, you know, back and forth. The captain I would put in a cage with hungry lions, and Gilvey Td strangle with my bare hands. That was probably because of the cough, I capes.

SHE was back. "Please tell me about it," she begged. "Tm so curious."

I opened my eyes. "You want

I opened my eyes. "You want me to tell you about it?" "Oh, please!" "About what it's like to fly to

Mars on a rocket?"
"Yes!"
"All right," I said.

It's wonderful what three little white pills will do. I wasn't even shaking. "There's six men, see? In a

There's six min, see'. In a spec the size of a Buick, and that's all the room there is. Two of us in the bunks all the time, four of us on watch. Maybe you want to stay in the sack an extra tendentates—because it's the order to the six of the

"And maybe you don't have elbows in your side while it's your

51

turn off watch, but in the starboard bunk there's the air-regenerator master valve—I bet I could still show you the bruises right around my kidneys—and in the port bunk there's the emergency-escape-hatch handle. That gets you right in the temple, if you turn your head too fast.

"And you can't really sleep, I mean not soundly, because of the noise. That is, when the rockets are going. When they aren't going, then you're in free-fall, and that's bad, too, because you dream about falling. But when they're going, I don't know, I think it's worse. It's pretity loud.

"And even if it weren't for the noise if you sleep to soundly you might roll over on your oxygen line. Then you dream about drowning. Ever do that? You're strangling and choking and you can't get any air? It sort dangerous, I guess. Anyway, it always woke me up in time. Though I heard about a fellow in a flight six years ago-"Well. So you've always ort

this oxygen mask on, all the time, except if you take it off for a second to talk to somebody. You don't do that very offers, because what is there to say? Oh, maybe the first couple of weeks, sure-weybody's friends then. You don't even need the mask, for that matter. Or not very much. Every-body's still pretty clean. The place smalls—oh, le's see—about like the

locker room in a gym. You know?
You can stand it. That's if noI body's got space sickness, of
course We were lucky that way.

"But that's about how it's going to get anyway, you know. Outside the masks, it's soup. It isn't that you smell it so much. You kind of taste it, in the back of your mouth, and your eyes sting. That's after the first two or three months. Later on, it sets yorse.

course, the oxygen mixture is coming in under pressure. That's funny if you're not used to it. Your lungs have to work a little bit harder to get rid of it, especially when you're asleep, so after a while the muscles get sore. And then they get sorer. And then-

"And with the mask on, of

"Before we take off, the psych people give us a long doo-da that keeps us from killing sech other. But they can't stop us from thisking about it. And afterward, after wer's back on Earth—this is what you won't read about in the articles—they keep us apart. You know how they work it? We get a persion, naturally. I mean there's got to be a pension, otherwise there sin't enough more; in the world to make anybody go. But in the contract, it says to get the pension

we have to stay in our own area.

"The whole country's marked
off. Six sections. Each has at least
one his city in it. I was backy. I



got a lot of them. They try to keep it so every man's home town is in his own section, but—well, like with us. Chowderhead and the captain both happened to come from Santa Monica. I think it was Chowderhead that got Calfornia, Nevada, all that Southwest area. It was the luck of the draw God knows what the captain draw God knows what the captain

got.

"Maybe New Jersey," I said,
and took another white pill.

WE went on to another place and she said suddenly, "I figured something out. The way you keep looking around." "What did you figure out?"

"Well, part of it was what you said about the other fellow getting New Jersey. This is New Jersey. You don't belong in this section. right?"

"Right," I said after a minute.
"So why are you here? I know
why. You're here because you're
looking for somebody."

"That's right."

She said triumphantly, "You want to find that other fellow from your crew! You want to fight

I couldn't help shaking, white pills or no white pills. But I had to correct her

"No. I want to kill him."

"How do you know he's here?
He's got a lot of states to roam around in, too, doesn't he?"

"Six. New Jersey, Pennsylvania,
Delaware, Maryland – all the way
down to Washington."
"Then how do you know –"

"Then how do you know —"
"He'll be here." I didn't have to
tell her how I knew. But I knew.
I wasn't the only one who spent
his time at the border of his as-

signed area, looking across the river or staring across a state line, knowing that somebody was on the other side. I knew. You fight a war and you don't have to guess that the enemy might have his troops at housand miles away from the battle line. You know where his troops will be. You know where his troops will be. You know he

wants to fight, too.

Hutta. Hutta.

I spilled my drink.

I looked at her. "You — you

didn't = "

She looked frightened. "What's the matter?"

"Did you just sneeze?"
"Sneeze? Me? Did I - "

I said something quick and nasty, I don't know what. No! It hadn't been her. I knew it.

It was Chowderhead's sneeze.

CRoebuck, his name was. Five feet eight inches tall. Dark-complected, with a cast in one eye. Spoke with a Midwest kind of accent, even though he came from "barvor" for "horror," like that. It 'hawror" for "horror," like that. It drove me cray after a while. May-

him!"

be that gives you an idea what he talked about mostly. A skunk. A thoroughgoing, deep-rooted, mothermurdering skunk.

I kicked over my chair and roared, "Roebuck! Where are vou.

damn you?"

The bar was all at once silent.

Only the jukebox kept going.
"I know you're here!" I screamed. "Come out and get it!
You louse, I told you I'd get you

for calling me a liar the day Wally sneaked a smoke!" Silence, everybody looking at

Then the door of the men's room opened.

He came out.

He looked fousy. Eyes all redrimmed and his hair falling out the poor crumb couldn't have been over twenty-nine. He shrieked, "Yout" He called me a million names. He said, "You thieving rat, I'll teach you to try to cheat me out of my candy ration!"

I didn't care. I didn't have anything and that was stupid, but it didn't matter. I got a bottle of beer from the next table and smashed it against the beck of a chair. It made a good weapon, you know. I'd take that against a knife

know; I'd take that against a knife any time.

I ran toward him, and he came all staggering and lurching toward me, looking crazy and desperate, numbling and raving. I could

he hardly hear him, because I was
A talking, too. Nobody tried to stoperus. Somebody went out the door
and I figured it was to call the
cops, but that was all right. Once
u, I took care of Chowderhead, I
didn't care what the cops did

I went for the face.

slide up along my left arm but, you know, it didn't even hurt, only kind of stung a little. I didn't care about that. I get him in the face, and the bottle came away, and it was all like gray and white jelly, and then blood began to spring out. He screamed. Oh, that scream! I never heard anything like that scream. It was what I had been waiting all me tile for waiting all me tile for the scream of the scream.

He cut me first. I felt the knife

I kicked him as he staggered back, and he fell. And I was on top of him, with the bottle, and I was careful to stay away from the heart or the throat, because that was too quick, but I worked over the face, and I felt his knife get me a couple times more, and —

And -

A ND I woke up, you know. And there was Dr. Santly over me with a hypodermic needle that he'd just taken out of my arm, and four male nurses in fatigues holding me down. And I was drenched with sweat.

with sweat.

For a minute, I didn't know where I was. It was a horrible queasy falling sensation, as though

the bar and the fight and the world were all dissolving into emoke around me

It was almost worse.

Then I knew where I was, I stopped velling and just lay

there, looking up at them. Dr. Santly said, trying to keep his face friendly and noncommital, he said, "You're doing much better, Byron, boy, Much better." I didn't say anything

He said, "You worked through the whole thing in two hours and eight minutes. Remember the first time? You were sixteen hours killing him. Captain Van Wyck it was that time, remember? Who was it this time?"

"Chowderhead." I looked at the male nurses. Doubtfully, they let go of my arms and legs.

"Chowderhead," said Dr. Santly. "Oh - Roebuck, That boy," he said mournfully, his expression saddened, "he's not coming along nearly as well as you. Nearly. He can't run through a cycle in less than five hours. And, that's neculiar, it's usually you he - Well, I better not say that, shall I? No sense setting up a counter-impression when your pores are all open, so to speak?" He smiled at me, but he was a little worried in back of the smile. I sat up. "Anybody got a cigar-

ofto?"

"Give him a cigarette, Johnson," the doctor ordered the male nurse standing alongside my right foot. Johnson did, I fired up. "You're coming along splendid-

ly," Dr. Santly said. He was one of these psych guys that thinks if you say it's so, it makes it so. You know that kind? "We'll have you down under an hour before the end of the week. That's marvelous progress. Then we can work on the conscious level! You're doing extremely well, whether you know it or not. Why, in six months - say in eight months, because I like

at me - "we'll have you out of here! You'll be the first of your crew to be discharged, you know that?" "That's nice," I said. "The others aren't doing so well?" "No. Not at all well, most of

to be conservative - " he twinkled

them. Particularly Dr. Gilvey. The runthroughs leave him in terrible shape. I don't mind admitting I'm worried about him."

"That's nice," I said, and this time I meant it

E looked at me thoughtfully. but all he did was say to the male nurses, "He's all right now. Help him off the table."

It was hard standing up. I had to hold onto the rail around the table for a minute. I said my set little speech: "Dr. Santly, I want to tell you again how grateful I am for this I was reconciled to living the rest of my life confined to one part of the country, the way the other crews always did. But this is much better. I appreciate it. I'm sure the others do.

"Of course, boy. Of course." He took out a fountain pen and made a note on my chart: I couldn't

a note on my chart; I couldn't see what it was, but he looked gratified. "It's no more than you have coming to you, Byron," he said. "I'm grateful that I could be the one to make it come to ness."

He glanced conspiratorially at the male nurse. "You know how important this is to me. It's the triumph of a whole new approach to psychic rehabilitation. I mean to say our heroes of space travel are entitled to freedom when they come back home to Earth, aren't they?"

"Definitely," I said, scrubbing with, some of the sweat off my face I h

onto my sleeve. than that.
"So we've got to end this sys-

tem of designated areas. We can't avoid the tensions that accompany space travel, no. But if we can belp you eliminate harmful tensions with a few runthroughs, why, it is not too high a price to pay,

"Not a bit."

"I mean to say," he said, warming up, "you can look forward to the time when you'll be able to mingle with your old friends from the rocket, free and easy, without any need for restraint. That's a lot

to look forward to, inn't it?"
"It is," I said. "I look forward
to it very much," I said. "And I
know exactly what I'm going to
do the first time I meet one — I
mean without any restraints, as
you say," I said. And it was true;
I did. Only it wouldn't be a broken
beer bettle that I would do it

I had much more elaborate ideas an that.

- PAIR FLEHR





WITHOUT GRAVITY

By WILLY LEY

AST month I covered me of the work done by the Department of Space Medicine at Randolph Air Force Base I told that General Horry G. Armstrong created this department in March 1949 for the specific purpose of finding out all the medical aspects of space travel before the engineers are ready to build a spaceship. In spite

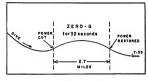


Fig. 1: Principle of perebolic flight

of this far-sighted decision, it cannot be denied that the engineers are creeping up on the medical men.

Every once in a white Los An-

geles shakes because the engineers at Rocketdyne are putting something especially heavy on their teststands. And at North American Aviation, they are fussing with details of something which is called the X-15. That X-15 is a rocket-propelled research airplane, building at the time I write this and possibly finished when this issue reaches the newsstands At any event the X-15 is surposed to throw itself into a gigantic arc with its peak 100 miles up. about five times as high as Man has flown so far Elsewhere, astronomers and en-

WITH so much going on, it is always amusing to check back by pulling out the "old" books and pamphlets of thirty years ago. Nobody, with the sole exception of Professor Hermann Oberth (whose father was a phy-

They don't discuss whether one can shoot an unmanned rocket to the Moon. That is taken for granted. What they do discuss is how one can get the largest amount of scientific information from a shot that can carry only a few pounds of payload. It is not just a question of what to use for payload; it is just as much a question of which trajectory from the Earth to the Moon, will produce the largest number of different results in the most reliable manner.

the Moon-unmanned, of course,

gineers are discussing a shot to



Fig. 2: T-33A reedy for perebolic flight, From left to right: Mejor Herbert D. Stellings, Professor Hubertus Strughold, Dr. Stegfried J. Gerethewohl

sician), paid any attention to medical problems. The attitude seems to have been that it was the duty of the pilot to survive whatever may come.

I remember attending a lecture by the late Max Valier in 1929 in which he declared that the whole problem of space travel was merely a matter of having sufficiently powerful rocket motors Well, yes, if the motors are too weak, you obviously won't get anywhere: but they are only one aspect of the whole. After the lecture. Valier was asked by a member of the audience how the pilot would fare Valier replied that the engineers who are capable of building such a ship would also be able to protect the pilot from all possible borm

It was a logical answer, all

right, but first the engineers have to know what the possible harm could be.

As I said, the only one who did

As I said, the only one who did think about medical problems was Prof. Oberth who, in the first edition of his book (1923), explained that the pilot of a rockethijn would experience two very different sensations in succession. As long as the rocket motors were burning, he would be subjected to high accelerations, making him feel several times as heavy as the actually is. Then, as soon as the motors

stopped burning, he would feel weightless. Looking around for examples, Oberth realized that airplane pilots, making sharp turns, are subjected to higher accelerations, too, In a rocketship, Oberth continued, the acceleration would be about



Fig. 3: Representation of a test chart made in perebolic flight

× green, lg O red, zero-g

o blue, 3g's

the same, but would last for a longer time, even though it probably would never be more than tenminutes. He then suggested building a large centrifuge for testing and, possibly, training.

Such large centrifuges have been built since and a large number of test runs have been made, with results which were surprising only insofar as they showed that the human body is much tougher than had been expected.

The second condition, lasting for a much longer time, would be weightlessness which Oberth called "free fall" but which is now referred to as "zero-g." This zero-g condition simply means that a body is following the pull of gravity freely: it does not materially the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the pull of gravity freely: it does not materially support the gravity freely: it does not

ter whether it is actually falling, or moving away from the Earth on momentum, or following an orbit around the Earth like a satellite. All this was theoretically quite

All this was theoretically quite clear. The problem was how one could run a test. A man who jumps from a high diving board into water is under zero-g from the moment he leaves the board to the moment he hits the water. This fact, it turned out, was no help at all.

I HAD a chance—the year was I 1930—to talk to more than a dozen high-board diving champions, both male and female, and each and every one of them was greatly surprised to learn that he or she was under zero-c during.



the 33 feet between the board and the water. The reason none of them had noticed anything pecuiar was easy to figure out; they simply were too busy during the jump. They had to twist and turn and control the actions of their own muscles. They probably wondered whether the additional halftwist they might put in would look better and win them a troohy.

My next try was ski-jumper.

They admitted that a long jump felt like soaring, but again they were too busy-their thoughts were not on the jump but on the landing at the cod of it.

I decided that it was difficult to wring scientific information out of muscle men and waited for a chance to interview a man who jump with a parachute. I never did interview such a man, however, because I realized after a while that he does not experience zero-g. Air resistance decelerates him quite strongly and, to the body, acceleration and deceleration feel the same.

Oberth, in the meantime, had tried something else. The period of time for which one could produce zero-g near the ground obviously was not long enough for making any observations and there also were too many distracting factors. How about fooling the body into believing it was experiencing zero-g?

As researchers will do, whenever possible, he experimented on



Fig. 5: Marcury bottle placed in mid-air under vero-o

himself: even the very best description is only a poor substitute for having experienced something So he dosed himself carefully with a drug-scopolamine, if I remember correctly-and then lowered himself into a tub filled with water of body temperature closing his eves and turning himself around a few times to shake off his sense of direction. He told me that the sensation was pleasant. But since nobody had experienced real zero-g at that time, there was no way of telling whether Oberth's experiment had imitated the sen-

After the war, in this country, scientists built a small scaled "animel censule" which could be cer-

ried by an Aerobee rocket and take mice and monkeys two of each, up some 60 miles. The animals would experience in se-

quence: A. powerful acceleration while the solid-fuel booster of the Aerobee was burning: this would be followed by

B. less powerful but increasing acceleration while the liquid fuel motor of the Aerobee was burning, followed by C. zero-g while the rocket was

coasting to its peak. Then there would be D. short shock while the capsule was ejected from the rocket.

followed by zero-g again while the capsule was falling. Then 63

sations correctly.



- there would be E. sharp deceleration for a moment as the parachute opened and then
- D. normal one-g while the parachute drifted downward to the ground.

W/ELL the animals survived all this nicely and lived happily for as long as animals of these sizes live. The one thing which neither their filmed behavior nor their electrocardiograms could tell was how it had felt.

At about that time, the brothers Fritz and Heinz Haber, then both with the Department of Space Medicine, evolved a method of producing zero-g safely and for a about half a minute. (Fig. 1.) If you take a fast airplane and put it in a power dive, then pull out of it and simultaneously shut the engine off, the plane will go through a curve, an arc, in which zero-g should prevail until power is restored. The faster the plane, the longer the arc and the longer the period of zero-g. For a T-33 iet, the maximum obtainable

reasonable length of time, namely

should be about 32 seconds. Since the arc through which the plane would coast is very nearly a parabola, the whole was called

"parabolic flight." Naturally, during the pullout maneuver, the acceleration would



Fig. 7: Test subject precticing hitting terget

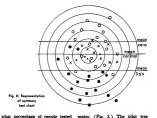
a flight would simulate a rocket flight rather well: several g followed by zero-g. (The preceding acceleration can be varied by the pilot by varying the sharpness of the pullout.) Similar experiments had already

Similar experiments had already been performed at Wright-Paterson Air Force Base, but the first man, to my knowledge, to make such a clear-cut "parabolic flight" was the test pilot Capt Charles E. Yeeger. During his first flight, a pencil which had been lying around in the cockpit rose up and bovered in mid-air, proving that the performance of the performance of the even. Captain Yeeger did not like the sevention.

Others did not agree with this

judgment, so it began to look as if zerog bros some resemblance to seasickness. Everybody knows someone, or do someone, who begins to feel unhappy when still on the pier, while others, in mid-coean and in the middle of a storm, cannot understand why lanch int's served on time. Of course the problem was not mercely it was also whether a man could data course distribute the same could do something while under sore, and how well he could do something while under sore, and how well he could do something while under sore, and how well he could do well and well do well do well do well do well and well and

This was something for the School of Aviation Medicine to go after. Was the tolerance to zero-g an individual problem like seasickness and sirrickness? If so



could stand it if necessary, what percentage could notstand it even when necessary, and what percentage, if any, liked being weightleas? And after yo that found a number of individuals who were not hopeleasly intolerant to zero-g, how well could they perform a simple function, like, for example, push a button?

QUITE a number of zerog
flights were made for this
purpose, some with rather powerful acceleration prior to the zerog
period, some with as little extra
acceleration as could be managed.
The plane used for all these flights
was a Lockleed T-33 is to, a two-

Major H. D. Stallings, who by now must have made more parabolic flights than anybody else alive (unless the Russians drag up some pioneer komsomol who started all this while still in short pants) and Dr. Siegfried J. Gerathewohl briefed the test subjects, if he was not the test subject himself.

The test subjects were all Air Force personnel from aviation cadets to majors, with hundreds of hours of flying experience, many of them also with jet experience.

First they were handed an instruction sheet reading as follows:

 This experiment is made to gather information about

- your experience of weightlessness. Read these instructions carefully and follow them through your flight.
- 2 There will be 4 dives from an altitude of 20,000 to 17.500 feet producing weightlessness for about 15 seconds Dull the convex in front of you during the first three dives and direct your attention exclusively to the sensations, feelings and perceptions of weightlessness. Keep your eyes open during the first dive, have them closed during the second diver and observe a floating object of your arms during the third one. Find out how it feels to be weightless. This task requires insight and practice: that is the reason why we fly this maneuver three times.
- Push the canvas back after the third dive and look oneside during the fourth one. Does this make any difference to your perceptions and sensations in the weightless state?
 There will be a short period
- 4. There will be a more period of recovery during straightand-level flying at 20,000 feet. If you are not sure about your experiences or want to try again under a certain condition, let the pilot know. The pilot will repeat the maneuver.

- If you get motion sick or feel uncomfortable, communicate this to the pilot. He will adjust the temperature and return home. Switch to 100%
- oxygen. 6. If you feel comfortable, the pilot will fly a series of three parabolas, one after the other. This will produce practical weightlessness up to about 30 seconds in each parabola, and a radial acceleration of about 3 g's during each pull-out. Compare how this feels now. Shake your head slowly in the horizontal and vertical plane during the third period of weightlessness. Do you notice any changes in perception or even visual illusions during head move-
- 7. If you should feel uncomfortable, direct your attention to exploring the cause. Is the feeling of unpleasantness enhanced during weightlessness or during the pull-out? If you get sick, tell the pilot, he will filt you home.

ments?

- 8. If you feel well and want to try, the pilot will conclude the flight by two slow rolls; one to the right and one to the left. Compare how this feels and whether visual illusions occur during the maneriver.
 - Please render a written re-

port about your personal experiences and your tolerance during the weightless condition. The more interesting experiences you can report, the better you can help us. If nothing seems of interest to you, sum your experiences up in about A or 5 obsessed.

 Remember: In a few years, people will have to live and work in sub- and zero-gravity for some hours and even days. Your contribution is essential for the exploration of space.

YOU can find Dr. Gerathewohl's full report about the experiences of sixteen people in vol. II of Astronomica Acta, 1986, beginning on p. 203. The summary of that report phrases the findings as follows: "The majority of our subjects file very confortable during weightlessness; several subjects reported enrations of mosubjects reported enrations of mosubjects reported enrations of mosure and the property of the proting of of the

The conclusion drawn from these experiments is the one that was suspected after the very first reports had been published, nameby that there are pronounced individual differences when it comes to weightlessness. For the first rocketshins, one will just have to

pick those men who like being weightless and have no trouble adapting to it.

The next question was whether

a man might be able to perform a simple task under zerog. For example: could a man push a button? To use a real button of some kind for the experiment would not do much good; you could tell how often the man has hit, but you could not tell how often he has missed and by how often he man the man has a missed and by how often he man missed and by how often he man missed to constructed a "target" (Fig. 3) constructed a "target" (Fig. 3) constating only of concentric circles.

At first, the test subject used a green pencil in ordinary level flight (little crosses on Fig. 3) to practice a little. Then he used one of those pencils which are red at one end and blue at the other. The blue end was used under three g, the red end under zero-g.

The chart shows what happened. The red marks (circles on the chart) all have a tendency to go too high, indicating that the man was not yet used to the fact that his arm did not weigh anything. A few marks are near the central of the companies of the weight-leavues of his erm.

The blue marks, made under 3 g, usually hit too low and they all have a tail, showing that the heavy arm slid down. Again there are a few marks at about the right height, made with an effort at compensation.

I wish to point out that Fig. 3 is not a reproduction of an actual test charf. I did not have enough time to copy one and the originals, of course, have to stay in the files. But this is the way these charts look.

In between, there were a few experiments with floating objects. Fig. 4 shows a plastic bottle, containing water, which has just beneating water, which has just beneating water, which has just beneating water floating around the provided of the provided provided water floating around At the moment the picture was made, they had not yet been long enough to contract to a spherical shows.

Figures 5 and 6 show a bottle containing mercury. In Fig. 5, the bottle is just being placed in mid-air. Fig. 6, taken a few seconds later, shows "space normal"—the bottle is floating in the air of the cabin and the mercury is floating inside the bottle, not touching its wall anywhere.

SINCE pencil points break occasionally, Dr. Gerathewohl stylus. The target was the same: concentric circles drawn on white paper, which was backed by corrugated cardboard. Fig. 7 shows the test subject practicing with it prior to takeoff. Otherwise the pattern remained the same: the holes punched into the target under zeroeg usually fell too high, while those punched under 3 g usually fell too low.

If you combine a number of such targets into one (Fig. 8), you can draw lines showing the mean position of the marks subowing the mean position of the marks subdunder 3 g, in level flight (1 g, and under zero-g. But these are mostly the results obtained from test subjects with little zero-g experience. As time goes on and the same test subject repeats the test over and over again, one can expect the three "means" or the subowing t

closer and closer to each other.

There is no "last word" to this story.

The tests go on, and by the end of this year—when you read this—much more material is likely to have accumulated. All one need say right now in summing up is that zerog is no longer an unknown quantity on the road to stocc travel.

- WILLY LEY

* * * *

Rex and Mr. Rejilla

By GORDON R. DICKSON

Illustrated by JOHNSON

Raing on ollen house quest wished on a family.

Mr. Rejilla was determined not to meddle . . . but

what constituted non-meddling and what didn't?



T that moment, Lucy came into the kitchen. Tom Reasoner ducked the bottle behind him, but it was too late.

"Oh no, you don't!" She came

across the new Luster-Glo floor and took it away from him. "You heard what the Ambassador said. No smoking or drinking while Mr. Rejilla's here. Aprinkians don't like it."



"Well, for cripe's sake!" protested Tom. "He isn't going to get down on his hands and knees and smell poor old Rex's breath. And it's not going to ruin my." Foreign Office career if he does."

"How do you know?" said Lucy. She put the rum bottle back on the shelf above the Freezador. "Maybe Mr. Rejilla has a very acute sense of smell. Besides, it won't burt that boozehound to lay off for one night in over six years."

She poured out the rum and milk and refilled Rex's pan with plain milk, setting it down on the floor before him. That boozehound—he was an enormous Great Dane—sniffed at it, whined

and looked up at her mournfully.
"No!" said Lucy. "No, Rex. Not tonight. Drink your nice milk."

REX mound softly and despairingly under his breath and lay down with his paws covering his eyes.

"There!" said Tom. "See what you've done? Now he thinks we're mad at him. He's always had his nightcap, Lucy – ever since he was a puppy."
"Well. he can just do without

it this once. I'm not going to have the representative of the most intelligent alien race we've bumped into yet going home and telling the other Oprinkians how immoral we are. Besides, it's time Rez learned that life init's all rum and milk Ordinary dogs don't get grog rations.

"But he isn't any ordinary dog,

honey. Remember who his father was. Rex Regis took Hollywood by storm. A genius among dogs, they called him. He could do everything but talk—"

"What can Rex do?"
"Well, the point is-"

"I said," repeated Lucy, "what He hurried out.

can Rex do? I'll tell you what Rex can do—our Rex—this hoothswilling, vase-smashing, overgrown lump off the old block. Nothing! That's what our Rex can do."

"Owooo," said Rex mournfully to the floor between his paws.

"No, you don't!" snapped Lucy at the huge canine, "You aren't going to get anywhere trying to play on my sympathies this time. And you, Tom Reasoner!" she continued rounding on her hushand, who took a step buckward and almost tripped over the collapsed Rex. "Here we are chosen -chosen over everybody else in the Foreign Office-to give the Oprinkian Representative a real glimpse of human home life, and after I've spent two days trying to get the house just perfect, what do you do? You try to botch it all up before he even ar-

rives." "I-."

"And you'd better get your jacket on, because Mr. Rejilla's coming in on the midnight copter and we're late leaving for the community port now. This is a great start!"

She went out. Tom paused long enough to give Rex a consoling put between the dejectedly drooping ears.

"Sorry, old son," he said softly.

"C'est la guerre."

GALAXY SCIENCE FICTION

DANERAUX, the Washington Charge d'affaires to the visiting Oprinkian Representative, and a hard-faced man named white, from the Internal Security Branch, were waiting at the copter port to give Tom and Lucy last-minute instructions.

"All right now," said Daneraux.
He was a small man who had a
habit of going up on his toes
when he got excited. He was very
much up on his toes now. "Now
listen, both of you. You'll be completely covered at all times."

"Right," said White.
"Right. And what we want is that you two just act normal. Just normal, you understand?"

Just normal, you understand?"
"Sure," Tom replied.
"Remember. Reiilla's the rep-

resentative of a greater race than any we've encountered to date. They may have all sorts of abilitics. We absolutely can't afford to take a definite line with them until we find out just what their potentialities are."

"Right," said White.

"Right. We have a feeling, now -in fact, it's practically a certainty-"

"Check," said White.
"-that they're as much in the
dark about us as we are about
them. That's why Rejilla's asked
for this chance to spend twentyfour hours with a typical human
couple in a typical human household. Theoretically, it's last actahold. Theoretically, it's last acta-

demic interest. Actually, he probably wants as much data as he can get. Now you remember the taboos?"

"No smoking while he's visiting," said Tom. "No drinking. No fresh plants in the house. He's not to be disturbed once he's shut himself in our spare bedroom, until he comes out again. Keep the dog out of his room—" Tom sighed. "We should have sent Rex away for the weekend. It'd be easier."

"No, no!" cried Daneraux.
"That's one reason you were
picked. Because of the dog. The
Oprinkians don't have pets. He
specifically asked for a family
that had a pet. He wants you to
act with perfect normalcy."

"Perfect," said White,
"All we ask is that you spend

an ordinary twenty-four hoursonly just remember that the Oprinkians outnumber us and that-this is restricted information now: they seem to be somewhat more advanced than we are technically-and furthermore.

The announcer's voice broke out overhead from the metallic throat of the loudspeaker.

"Please clear the stage, Please clear the stage, Eastbound copter landing now. Eastbound copter now descending for a landing."

"How come they didn't send him out in a private ship?" Tom just had time to ask as they all moved off to the stage entrance. "He didn't want to." replied

Daneraux.
"He wanted to ride out to your community here just like any ordinary citizen. Ha! Every seat on the copter except his is taken by Security agents."

THEY brought up short against the chest-high wire fence that enclosed the stage. A gate had swung open and a flood of passengers from the copter were streaming out. Rather curiously, in their exact midst, emerged the tall, thin, black, furry-looking form of the Oprinkian alien.

He was swept forward like a chip in the midst of a mass of river foam and deposited before the four of them

"Ah, Daneraux," he said. "It is very good of you to meet me." He had a slight, lisping accent. Aside from this, he stoke English

very well.

"Mr. Rejilla!" exclaimed Daneraux exuberantly. "How nice to see you again! This young couple are your host and hostess for the next twenty-four hours." He stood aside and Tom and Lucy got their first good look at the alien.

He was tall-in the neighborhood of six feet five-but very thin, almost emaciated. Tom guessed him at less than a hun-

no real clothing in the human senae, only an odd arrangement of leather-looking straps and bunds that covered him in what appeared to be an arbitrary rather than a practical fashton. Evidently his curly black body fur, or hair, gave him some protection from changing temperatures, since the late April night was in the low fifties and the chilly air seemed to leave him

dred and thirty pounds. He wore

"May I present," Daneraux was saying "Tom and Lucy Reasoner. Tom is an Ambassador's Staff member, here in Washington. One of our crew. Lucy was on our clerical staff before the merried Tom."

"Hay-lo," said Rejilla. "To you both, haylo. Do we shake right hands now?"

They shook right hands. Rejil-

la's furry grip was fragile but firm.

"I am so most indubitably honored to be a guest within your

walls," commented Rejills. "The weather, it is fine?" "Very fine," Daneraux agreed. "Cond Though perhaps it will

"Good. Though perhaps it will rain. That would be good for the crops. Shall we go?"

"Right this way," said White. The Security man led them out and to the Reasoners' car. White slid behind the wheel in the front seat. Daneraux behind him. Rejilla insisted on sitting between Tom and Lucy in the

"I understand," he said to Lucy, as the car pulled away from the parking area, "that you have two lovely grandparents." "Well..." fumbled Lucy. "As a

metter of fact I have three still

noid

"Three!" cried Mr. Rejilla joyfully. "How wonderful! I dote myself on grandparents very much. I write them poems. Yes." He turned to Tom. "And you.

sir?"

"Uh—one grandfather," said

Tom. "only."

"The ways of Providence are mysterious," replied Mr. Rejilla, putting a comforting hand on Tom's knee. "Uh-thanks."

"How black the night," said Mr. Rejilla, gazing out the window of the speeding car. "We're almost there." White

A FTER White and Daneraux had dropped them off back at the house, Mr. Rejilla insisted on retiring to his room immediately, which gave Tom and Lucy

ately, which gave Tom and Lucy a chance to escape to theirs. "My!" gasped Lucy, when the bedroom door was safely closed upon them. "He isn't anything like I imagined." She set about setting ready for help at any sett

the "More what?" asked Tom, hanging up his jacket.

"Oh, I don't know. More positive. More dangerous, sort of."
"You can't tell dangerousness

"You can't tell dangerousne from outside appearances."

"Well, you know what I mean."
"An alien culture must present some dangerous points, just as it must present some advantageous and congenial ones." He continued explaining the subject as

he undressed.

"How well you explain it!" said
Lucy, in admiration, as they
climbed into bed.

"Part of the briefing they gave us in the Foreign Office training school," said Torm. "Oh!" He climbed out of bed again and went over to the closet.

"What is it?" asked Lucy, sitting up in bed. She caught sight of her reflection in the mirror and adjusted one of the shoulder straps of her nightgown. It was a new nightgown.

"Sealed orders, I guess," said Tom, rummaging in an inside pocket of his dress jacket. "Daneraux slipped it to me as we were getting out of the car."

He produced an envelope and brought it back into bed with him. He ripped it open and unfolded a single sheet of paper. "Information received by spe-

cial courier on same copter as Rejilla'," he read. "'Advices from Oprinkia Major Three indicate Rejilla actively engaged in study-ing homo sapiens for weak points which may be exploited in inter-racial diplomatic field. Be on lookout for any unusual activities on part of Rejilla and offer no information that you believe might be harmful in Oprinkian hands."

Tom sat for a moment, staring

"Well," he said, "there's a nice general warning." "We'll just have to do the best

we can," said Lucy. "Keep our eyes open and our mouths shut." "What weak points? That's the problem."

"We'll just have to be careful, Tom."
"Rasier said than done."

"Well, anyway," answered Lucy, "there's nothing you can do about it tonight. Put that letter away in the nightstand drawer. Here. Now that's that for tonight. Sufficient unto the day are the cares thereof. What do you think of my new nightnewn?"

"WHA-huh?" said Tom, waking up. Sunlight was filtering through the closed slats of the venetian blinds. "Wharist?" "Tom! Wake up!" whispered Lucy urgently, shaking him. "Wharamatter?"

"It's Rex. Rex!" she cried, clutching his arm. "It's what Rex? Rex what?" demanded Tom crossly. "Rex?" The Great Dane was standing by the side of the bed with his tongue hanging out in a friendly manner. The bedroom door

was ajar. The doors in this new house of their, unfortunately, had a push button type of latch and one of the few things Rex had learned was to push the button on the door know the button one until the door opened. Tom had cited it to Lucy as an instance that Rex had, after all, inherited his great father's brain. Lucy had remained unconvinced.

"I love you," said an unmistakably masculine voice.

Tom blinked and struggled up into a sitting position. He glanced around the room. He peered under the bad.

"Huh?" he said.
"I love you. Get up," said the voice.

"Lucy!" croaked Tom. "Who is it? Where is he?" "That's what I'm trying to tell

you!" said Lucy frantically. "It's him-Rex. It's Rex!" "I love you. Play ball? Fun?

Go walk."

"Rex!" Tom stared at the dog.
"Lucy! He's—I mean he isn't, is
he?" With a sudden explosion of
enersy. Tom jumped out of bed.

lunged across the room, closed and locked the door. Turning about with his back against its nenels, he regarded the canine interlocutor before him. "How can be talk?" he said

something, Rex." "Play ball? Nice Tom." "See_" vammered Tom "His

mouth doesn't move-" "Nice Lucy, I love you Lucy."

"I don't care what you say!" snapped Lucy, "That's Rex and he's talking."

"Nice Lucy and Tom, I'm hungry." The two humans stared at each

other "I'm nice, too," said Rex.

"Well, there you are." Tom said insanely, "I always said he had his father's brain-and Rex Regis could do everything but talk Rev just decided to learn to talk That's all?

"Don't be funny!" said Lucy sharply.

"Who's being funny? You hear him, too, don't you?"

"Of course I hear him, But he can't talk, That's impossible."

"How can it be impossible when he's doing it?" "I don't care. How can he talk

with his mouth? You said that vourself." "Well, he is. Rex, say some-

thing again."

REX was nosing after what might be a flea or just a stray itch. REX AND MR. REIILLA

"Rex!" Tom ordered in a sharp. no-nonsense voice. "I'm Rex! I'm Rex! I'm here.

thickly, "With his mouth? Say tool" said Rev. looking up cheerfully. "See me? Play ball? Nice Tom. I love Lucy, too,"

"Wait a minute!" Tom snapped his fingers. "I've got it!"

"Got what?" asked Lucy. "Ball?" asked Rev. "Ouch! Got

flee? Flee! There flee Take that! Bite, bite, bite, bite! Crunched flea."

"We really ought to get some more of that fice powder and dust him good," said Lucy thoughtfully. "I could run down to the drugstore after breakfast-"

"Will you listen?" Tom demanded, "Listen, Lucy!"

"Another flea?" queried Rex. checking a hind leg. "Where flea?"

"Lucy, it's telepathy," "Telepathy?"

"That's right, Look, his mouth doesn't move. And he speaks English, doesn't be? All right, be

couldn't just do that overnight. But if he was just thinking these things he says-and our own minds were putting them automatically into words-"

"Oh. Tom! That's just downright silly!"

"Why?" "Well, it just is," said Lucy.

"How could be go telepathic all of a sudden?"

"You think I don't have the answer to that, too?"

"You do?"

"I certainly do, Remember how smart his father was? Well. Rex is even smarter." "But_"

"Let me finish. The point is we never realized how much smarter he is because Rex here was drunk all the time."

"Drunk!"

"I don't mean staggering drunk," said Tom excitedly. "I just mean he had his rum and milk every night and probably the alcohol was just enough to inhibit his telepathic powers. You made him lay off last night-and this morning, here he is, beam-

ing thought waves at us." "Pet me," said Rex, nuzzling of property on Earth at this moup against Tom's knee.

"Down, Rex! Not now!" Tom said, pushing him away.

CARS drooping tail sagging. Rex hung his head and burst into heart-breaking sobs. "Tom! How could you?" cried Lucy, "He was just trying to attract your attention," She was out of bed in a flash and threw her arms around the dog's neck "Poor Rex! There, there, that's

all right. Tom didn't mean it. No. he didn't." "Love Tom, Love Lucy." gulped Rex. "Good Rex?" He looked up hopefully and flicked

out a long wet tongue, which Lucy dodged. "Boy, what a cry-baby!" said

Tom. "I certainly never susnected-" "Well, he's just a dog!" said

Lucy indignantly, "Good Rex. Good boy. That's better now. You're too hard on him. Tom."

"Me?" velped Tom in outrage. "Me? How about you-like last night when you wouldn't give him his drink? Just because you

can hear him now-" "Well. I had to." Lucy straightened up and sat back on the edge of the bed, "Tom, what're we go-

ing to do with him?" "That's the thing," said Tom, lowering his voice, "Rex here is probably the most valuable piece

ment, from every standpoint, including the military. And you realize who we've got under the same roof at this same moment?"

"Who . . . oh!" gasped Lucy. "Mr. Rejilla."

"Right!" said Tom grimly. "Well, we've got to get Rex out of here. Right away!"

"And tip Rejilla off that there's something special about him?" "Oh!" said Lucy. There was a moment's taut shuddering si-

lence, "What'll we do?" "Let me think."

Tom walked across the room to the dressing table, turned and walked back again. GALAXY SCIENCE FICTION



"Look," he said, "You go out and try to keep Rejilla occupied. We'll shut Pey up in here I'll try to get in touch with Danarany " "Are you going to phone him?"

"No no." said Tom. "Too much of a chance. Who knows what Rejilla might be able to do with an ordinary telephone? Maybe he carries a little portable wiretap or something. I'll run out and phone from the drugstore."

"Go walk?" asked Rex. "Sorry," said Tom. dressing hurriedly, "Later-if we're lucky," he added nervously.

The drugstore was empty, as it should have been at a little before nine o'clock in the morning Departure office informed Tom that Daneraux had not yet come in-

"Hell!" said Tom. He went back home

I UCY was drinking coffee in the living room, Mr. Rejilla was seated opposite her in the hig armchair, playing a flute. "Good morning," said the

Oprinkian as Tom came in, and lowered his instrument. "Take a

"Uh-I beg your pardon?" seked Tom dropping down on the living room sofa. Lucy hastily handed him a full

condolence. please."

cup of coffee "I was just telling Mr. Rejil-

le how sick Rex is," she said. with a meaningful glance "How you had to so for the veterinarian. Did you get him?"

"He wasn't in his office vet. Ow!" said Tom. He breathed violently through his open mouth.

"Well, you might have known it was hot," said Lucv.

"You find yourself internally dismayed by hot liquids?" inquired Mr. Rejilla. He produced what looked like a small state and a crayon from under one of the straps of his harness, "May I make a note?"

"Oh-sure," said Tom.

"I am endeavoring to understand humanity as a means to establishing the bonds between," explained Mr. Paiille "That is my twenty-four-hour mission here. Do you like music?"

"Well, yes," Tom said warily. "I will play you a small composition," said Mr. Reiilla, He did so. The tune that came out sounded like anything but a tune "Does it provoke you?" he inquired politely.

"It's very original," volunteered Lucy. "Indeed, Righty per cent origi-

nel," said Mr. Rejilla proudly. "It is a theme upon one of your human melodies" "Oh?" questioned Tom, searching his memory for a single simi-

larity "A Chinese melody, I am so told," said Mr. Reiilla, driving his point home

"Have some coffee," offered Tom, "What would you like to do today, Mr. Rejilla?" "I would like to peep," said

Reiilla.

"Peen?" "In on your lives. How fascinating, the living process, don't you agree? You are embound with so many things that on Oprinkia are unthought of. This net of yours, now in malady. Has he existed for a number of

vears?" "Five." said Tom.

"No. dear-six," corrected Lucy, "Don't you remember-" "Five." repeated Tom firmly.

"Has he offspring?" Mr. Rejille wented to know OM sipped cautiously at his

coffee, which was starting to get down to a tolerable temperature finally. "Not only that, but his offspring has offspring."

"A grandfather!" breathed Mr. Reiilla.

"Well ves."

"How noble!" said Mr. Reiilla enthusiastically, "I will make a special effort to remember him in my thoughts Now I must not detain you both. There will be housing affairs to demand your attention, no doubt. I would wish that you concern yourselves as customarily. Pay no attention to

me. I shall merely peep." He stopped and looked at them expectantly.

"Well-" said Tom. "Uh-maybe I better-tih-mow the lawn. Don't you have to bake a cake

or something, Lucy?"

"A cake?" asked Lucy, staring. "A coke" "Oh, a cake! Why, of course!

Why don't you two just putter around? I'll get my cake started -and when I get a chance, I'll try and give the veterinarian another ring."

"Superb!" said Mr. Reiilla, "So this is how the human day inaugurates I am complete atten-

The meeting broke up. Tom went out and fired up the power mower, Mr. Rejilla accompanied him. Lucy went off to the kitchen and hunted around for a cookbook. An hour and a half later, as Tom was pruning some rose bushes and Mr. Reiilla was watching, she appeared, crossing the lawn in the direction of the next-door neighbor's and return-

ing a few minutes later with a cup of flour. "I'm going to try again!" she called gaily, waving to them, and

disappeared in the direction of the kitchen. Tom talked Mr. Rejilla into trying his hand with the pruning shears and hurried off to the kitchen himself. Lucy was standing before a cluttered kitchen table with flour up to her elbows and even a dab of it on her nose.

"Tom, this is absolutely fascinating!" she bubbled as Tom came in. "Whoever thought it would be so much fun to cook! Phooey on that old roboserver. I can do better any day."

"What are you doing?" asked Tom distractedly. "Well, the first two went

wrong, somehow," said Lucy. "But I'll get it this time. Honey, will you run down to the market and get me some vegetable coloring for the icing? Pink."

"And how about Mr. Rejilla?"
"Oh, he can come watch me cook. Please, Tom."
"I'll do that," said Tom between his teeth. "I'll do just that. And maybe, while I'm at it. I.

can manage to make another call to the veterinarian."
"The vet-whatever for-oh!" said Lucy. "Oh, dear, I forgot. But then you can do it, as you say. Pink coloring."

"Pink coloring!" barked Tom, and slammed out of the house.

46 DANERAUX!* bleated Tom, when he finally got the Foreign Office man on a private phone down at the supermarket. "Listen."

He outlined the situation.
"Now, Tom," said Daneraux
soothingly.

"I tell you, it's the truth! Come out here and see for yourself, if you don't believe me."
"Security said to keep hands

off so Rejilla wouldn't know they were keeping the situation covered. I can pass the word on to them, if it'll make you feel better."

"Pass, nothing! Lucy's up to

her ears in baking a cake, which nobody in their right mind's tried for fifty years, Rejilla's taking notes, and Rex is locked in the bedroom, ready to blab his head off. I tell you, we've got to get that dog away where he's safe. Do you know what i'dl mean to have even a dog that could televished their services of the safe of t

Daneraux. "I'II be right out. I think you're suffering from hallucinations, but just on the wild chance there's some truth to this wait where you are. I'll be right over and pick you up. We'll go back to your house together, and if you're right, we'll figure some way of slipping Rex out so Re-illa won't suspect."

him. Now you listen to me -"

"All right, all right," said

"Well, hurry!"
"Keep your shirt on," said

Daneraux, and hung up.

Tom paced back and forth
sweatily for an inconsolably long

fifteen minutes. At the end of that time Deverage nulled up at the front entrance of the supermarket in an official runabout.

"Hop in." he said. White, the Security man, rose up in the back seat like a busi-

non mitad doman from the nother regions

"Hop!" he said. "You again!" Tom said to

White, "It's about time," He walked around and got in the front cont

"Tell it again," ordered White. Daneraux pulled out into the

etront By the time Tom had run through his story for a second time, they were back at the

house "It chacks " said White "Checks with what?" asked

Daneraux. "Our suspicions of Rejilla," replied White with cloomy satisfaction "Where is he?"

"In the kitchen with Lucy-I'll say you just happened to run into me at the market-they're right in here-"

THEY went through the door. Lucy was still at her kitchen table, which was more cluttered then ever Petitle was conspicnough, absent

"You got the pink coloring?" Lucy asked "Oh hello" she said

to Denerous and White

"Here," said Tom, hastily handing it over, "Where's Rejilla?" "Oh. thanks!" sang Lucy. "Tom.

I've really got it at last! A cake. baked all by myself-just like Grandma used to tell me about. I'll tell you what I did. I took a full cup of butter for shortening_"

"Where's Rejilla?" "I don't know. Anyway, it's all

done-" "Where's Rey"

"Why, he's back in the bedroom, isn't he-oh!" Lucy's hand

flew up to cover her mouth. "What is it?" snapped White,

"Mr. Rejilla said he was just going to look in on him-" The three men made a dash for

the bedroom in the forepart of the house: Tom leading, Daneraux right behind him and White bringing up the rear Lucy followed.

When they burst open the door to the bedroom, they discovered Rex lying on the floor and Mr. Rejilla tightening a leather strap around the dog's neck.

"Stop!" yelled Tom, and made a dive for the Oprinkian, only to be brought up short by some complicated sort of wrestling hold which White had clamped

onto him Mr. Reiilla rose with a surprised expression. Rex got to his feet with the stren densing and wagged his tail.



"He's the accredited Representative of an Alien Power!" hissed White in Tom's ear, and let him go.

"I beg your pardon?" Mr. Rejilla was saying. "Am I in violation of some custom? Observing that this grandfather appeared to enjoy the wearing of collars, I was impelled to decorate him with another as a token of affection and get-well-quick."

"Like furry man!" said Rex, happily and audibly, flicking a tongue in Mr. Rejilla's direction. "Play wrestle?"

"All right!" cried Tom, before White could stop him. "Go shead — deny it now! You found out Rex could project his thoughtstelepathy. So you came in here to shut him up permanently!" "Fight?" queried Rex doubt-

fully.

"No, no. Shut up, Rex," said

Tom "Now..."

H^E was interrupted by Daneraux tapping him on the arm.
"Tom," said Daneraux. "Did I understand you to say that this dog of yours was telepathizing right now?"

"Of course," said Tom. "Didn't you hear him? Now, Mr. Rejil-

"No," said Daneraux.

"No?" demanded Tom, wheeling on the Foreign Office man. "No, I did not hear Rex say or



aux.
"Rex? I'm Rex," announced
that individual

"Well, there you did," said Tom. "What're you talking about, Dan? You heard him that time

all right and—you didn't?"
"No," said Daneraux.
"No," said White.

"But-but-" sputtered Tom.
"Pardon me," interrupted Mr.
Rejille, "but do I understand your
implication, Tom, to the effect
that this grandfather is broadcasting his intentional statements
by non-auditory way?"

"Of course he is!"

"And you, too, are receiving the grandfather clear and

"Why, yes-" said Lucy. "Don't

"Woe," said Mr. Rejilla. He turned about and walked into the living room, where he collapsed on a couch and fanned himself with a magazine from the coffee table alonguide.

The humans followed him in bewilderedly.

"I don't understand," said

Daneraux.
"It is over," said Mr. Rejilla. "I resign myself. I am surrendered. I admit all, while requesting an asylum from politics to remain on this world. How mysterious the ways of grandfathers! Ah.

the grandfather clear and well. I am not unhappy at this
REX AND MR. REJILLA 85

termination, being by nature dutifully non-combative."

"Sir," said Daneraux, "could you perhaps explain it all a little more clearly?"

more ciestry: Rejilla said. 'I 'Indubitably', 'Rejilla said. 'I shall confess. What is of all universal relationality of teacher superiority and state of the confession of puently gendfators, percolating windom down to younger generations, are venerated. Oprinkina nature and sociological development cast us in roles of teacher. But what if pupil prove refractory ill system of the confession of pupil prove refractory ill system days. I supply the confession of public procedure. Spy, You understand.'

Spy. You understand."

"I'm afraid not yet," said

"During unconsciousing hours of nighttime for fine young couple here, I investigated exploratoratively. This is result."

"Tom!" gasped Lucy. "He means he read our minds last night while we were asleep!" "You Oprinkians have that ability?" snapped White.

MR. Rejilla nodded. "Matter of training only. Astonishing as results were, yet I defer action until, first, amazing chemical investigation of Lucy leading to discovery of almost extinct art of cake-baking and now this. Now this. Overwhelming average citizens in punjlability." "Well-" began Daneraux.

Mr. Rejills held up his hand and continued. "Affection basis for instruction, Consequently, I am informing Optimia no need to fear humans unteachable and set in motion defensive-offensive mechanisms of science to determine survival of porinkia over Earth, Myself, I intend to follow duty here with continuing instruction chosen pupils Tom and

Lucy Reasoner."

"But what's all this got to do
with Rex broadcasting his
thoughts?" exploded Tom. "He's
the important one around here."
"No." said Mr. Reillla.

"No" attend for.
"No" stated Mr. Rejilla, This
grandfather, though venerable
and praiseworthy, has discovered
no unknown talent. His simple
emanations always in existence
Only now, new sensitivity trigggred by my mental investigations of your and Lucy's minds
last night render you capable of
reception and interpretation of
simple animal thouseks."

Everybody stared. There was a moment of peculiar silence. "You mean—" croaked Tom fi-

nally—"it's us?"
"Yous. You. Yourself and
Lucy."

Lucy."
"But-"
"With training I shall supply
you with shilly to eventually re-

intelligent human and Oprinkian thoughts."

"Wait a minutel" commanded White suddenly "Do I understand you to say that these two people here are now telepathic?" "You understand" said Mr.

Reiilla courteously. "Don't move," White said. "Not any of you. Not even the

dog." He went out the front door. "What's got into him?" Tom blurted, staring after the Secu-

rity agent. "I think," said Daneraux nas-

tily, "he's cone out to cet some more people from Security, I think we're going to be covered with agents ten feet deep. I don't expect we'll be able to breathe without a man on each side of us. Just like you said for Rexonly it'll be you now." "Rex? I'm Rex." telepathed the

Great Dane, wandering into the living room with tail awag, "Love everybody. Pat me."

"A most magnificent grandfather," said Mr. Rejills admiringly.

Tom and Lucy stared at each other. They looked at Mr. Reiilla. at Rex. at Daneraux. Lucy es-

saved a tremulous smile. "Would-would anybody care for a slice of cake?" she inquired with a fine, false brightness. COPDON P DICKSON

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KILL ME WITH KINDNESS

By RICHARD WILSON

It was my foult? I'm not the first one to louse up Utopio by ottempting to improve itl

Illustrated by GAUGHAN

WOKE UP at noon after a blurred night before and padded around in my bare feet. Even the bathroom had inchthick carpet. I showered and brushed my teeth, but put off shaving.

Back in bed—it was eight feet long, six wide and had a contraption that kept the weight of the blanket off my toes—I ordered breakfast.

"Eggs McCutchen, cafe au lait,

pumpernickel bread with Wisconsin butter and — oh, orange juice," I said. "Fresh orange juice."

"Yes, sir," said a voice.
Simple fare was what I needed.
I'd had flaming bananas the previous day, but that's too rich for

breakfast. And canned orange juice is always terrible, even here in Paradise.

I hummed a bit of The Pris-

oner's Song, but forgot just how it went. "Play Bunny Berigan doing that number, will you?" I asked. During the second chorus, my

ray came out of the headboard I'd have preferred eating at the table, but for a while I was making myself enjoy some of my enforced luxuries. Breakfast in bed was one of them.

"Tray away," I said when I'd finished. The day before, I'd said, "Fast broken." They always understood my meaning (I'd been experimenting with that) and the tray vanished into the headboard. Another day was off and running.

however slowly.

"Play Nothin' to Do and All Day to Do It In," I said. That should have been a stumper. Years ago, I'd remembered the tune and tried half a dozen record specialists, but none had it. It was a cut-out, long gone from the catalogs.

But they had it. Erskine Butterfield sang and his piano tinkled and it was like old times, only I wasn't as poor. Now I had everything I wanted, sort of. I roused myself and went in to shave.

"What'll it be today?" I asked the Ear. "Dry, safety, straight or denil?"

"You haven't tried electrolysis, sir," the pleasant neuter voice said. "That would eliminate the

daily chore."
"No, no," I sang, "you can't take
that away from me."

"Shall I play that?"

"No, no," I said, not singing.
"Let me try the electric shaver
with the Rotary Action."

It popped out of the chute under the mirror. I dabbed on green pre-shave gunk and went to work. "No Razor Pull," I said. "But slow And it deem't set the Hid-

den Hair."

No comment from the Ear. I wasn't always favored with a re-

wasn't always favored with a reply to my witticisms.

DROPPING the shaver down

the chute, I mulled the uniform of the day. Yesterday I'd worn a Tarzan-style leopardskin with a special pouch for cigarettes. The day before, it had been a midnight-blue dinner jacket (shawl lapels) and scarlet cum-

"Attention to costume," I said.
"Today the well-dressed guinea
pig will wear, from the feet up, in
order: desert boots, soft wool
knee socks, khaki shorts, shortsleeve khaki shirt (two pockets,
please) and sun helmet."

"Yes, sir." The clot

The clothing came out of a wall chute. The sun helmet reminded me of Frederic March in Trade Winds (Joan Bennett), and that reminded me of March and Carole Lombard in Nothing

Sacred.

"This morning I will see some movie excerpts," I told the Ear. "I will see the scene in Nothing



Secred where Fred clips Carole on the jaw. Then I will see the bit in City Lights where Chaplin swallows the whistle, and the business in that Marx Brothers picture where a hundred people crowd into the stateroom. I forget the name of it."

"At once, Mr. Bland," the voice said. I went down the hall to the projection room. My unseen friend could have hoked it up by saying "Immediate seating on all floors' or "Smoking in the balcomy only," but their sense of humor ian't broad. This is probably just as well for me, their subject. They take pretty good care of me, everything considered.

On my way down the hall, I remembered another bit. "I also want to see Groucho do Hurray for Captein Spaulding"—the sun helmet again—"and the one where he's on the couch with Thelma Todd and Chico keeps coming through the window with the ice." "Yes, sir."

It was better than the film library at the Museum of Modern Art. I kept remembering other classic bits and asking for them and then it was lunch time.

But what I really wanted to see was a new movie — to go to it with my own critical faculties all sharpened up after reading Zinsser's caustic comments in the Herald Tribune and Zunser's kinder ones in Cite. (But puts to

those wise guys in Time and The New Yorker.)

I knew, though, that the Ear and his buddles would never allow that. They never let me see anything current. Maybe it was impossible for them to get it, or maybe it was part of their experiment to keep me ignorant of everything that had happened since the day of my capture.

Whatever the reason, the result was the same. I'd never see a new Hitchcock movie, or read a new novel by Marquand, or find out if the Democrats got the White House back in 1960.

Z INSSER and Zunser, I thought, tasting the syllables. Many of the things I liked to read or, look at, came in pairs. Crane and Cain were in my library. Hoppers and Groppers were on my walls. But nothing new.

I sighed and got up, the pleasure I'd had from Groucho and Chico and Thelma almost forgotten.

"I'll have lunch at the swimming pool," I said. (I had nearly everything.)

"Certainly, sir."

"Stuffed celery (cottage cheese, I think) with a sprinkling of paprika. Carrot strips, chilled. Half an avocado. Ry-krisp; no butter. A bottle of Tuborg beer and a necket of Senior Service." I try to keep it light at lunch, especially after a late breakfast. It's my own fault, but I don't get much evercise

"Ves sir"

"Oh—and have Esther Williams swim in waltz-time as I lunch."

The voice became reproving, though polite. "We must reiters with regret, sir, that requests concerning live human beings cannot be granted. However, if you desire it, a film excerpt of an Eather Williams water ballet is available."

"Never mind," I said. "Just needling you." I like to remind them every once in a while that I know their limitations. The trouble, though, was that it also reminded me of my isolation.

After lunch, I wandered into the gunroom and whanged away at tin cans with a 12-gauge shot-gun. The slare against my shoulder was satisfying and the ruination of an off-target wall still more so. But I knew it would be refinished the next time I went in even if it were only five minutes later. They have almost infinite resources. Still feeling completive. I went Still feeling completive. I went

to the billiard room and smacked the balls around. This reminded me that my next movie session would have to include W. C. Fields' business with the bent cue and, by association, his segment of If I Had a Million with Alison

pe- Skipworth and their junk-car venit's geance on reckless drivers.

But not today. The trick was not to overindulge or I'd always be in the movies, or drinking before lunch, or lying in bed all day.

"Ha, ha!" I said.

STATE ST

"Nothing. Point for my side, that's all. You wouldn't understand."

"We endeavor to. Will you ex-

"As you wish." The voice sounded disappointed, as if it had missed a trick.

I HAVENT a clue to the identity of my captors. I use the plural because it obviously takes more than one to operate the more than one to operate the is elaborate super-cage. I'm forced to call home. There would have to be a whole flock of them to supply my peculiar demands, and a gaggle of others to study me at all hours and keep tabs on my reactions.

words, I thought Gaggle is for geese and flock is for sheep. I amused myself for a while by adapting words to groups of captors, species unknown. Were they from Saturn?

"A dour of Saturnians," I said aloud to the ever-listening Ear. "I beg your pardon?"

"I'm classifying you. If you're

from Saturn, I dub a group of you dour. Are you from Saturn?"

"No comment, Mr. Bland." I hadn't expected any.

"A dour of Saturnians," I said, enjoying the sound of it, "would

be comparable, philologically speaking, to a pride of lions or a crash of rhinoceros."

"I follow you," the Ear said.

"Or a murmuring of starlings. There is poetry in your language, Mr. Bland."

"Thank you," I said. "Jupiter?"
"No comment. But I'm listening."
"Aren't you always? Jupiter.

Let's see. That would make you Jovians. How about a jubilation of Jovians?"
"Not bad." He was beginning

"Not bad." He was beginning to unbend. I almost liked him for it.

"I didn't think so, either. Pluto, maybe? How about a splash of Plutonians? That's a bit obscure, I admit – Pluto water – whiskey

and splash?"
"I liked your first better."

"I liked your first better."
"So did I, frankly. But you're
only as good as your last one, as
they say in Filmland. Let's press
on, Venus? A miasma of Vene-

rians?"
"No comment," said the Ear.
"You're hard to please."

"Tve got one for you."
"For me?" I was surprised. The
Ear almost never volunteered
anything.

"For your people. A tintinnabulation of Terrans."

"Bravo!" I said, really admiring it. "We can be a noisy bunch with bells on. I suppose I do give you a lot of trouble, Jeeves, old

man – always ringing for some crazy thing."

"Not at all, sir. Merely playing

your game."
"You've inspired me. I've got

one for Mercury. An instability of Mercurians. How's that?"
"Rather good. How about Mars

- to complete the inner planets?"

But nothing occurred to me except a phalanx of Martians, which
was hardly worth uttering. "I'm

getting bored with the game."
"As you like."

A T THE library, I spent an

hour with Mark Twain and E. B. White and Richard Bissell, then, my eyes tiring, demanded talking books.

I listened to some Dylan Thomas, and Charles Laughton reading the Bible, and Laurence Olivier and Churchill and FDR, and Edith Sitwell and a bit of Al Smith, and fell asleep during some dedication speech.

"Cocktail time," I said, waking up thirsty. "Attention to orders." "Yes, sir." The voice was atten-

"No Martini today. No Gibson.
Nor Screwdriver nor Bronz. A

Paratroop Plunge."

"A Paratroop Plunge?" This was beyond their ken, as I had hoped. They couldn't know everything. The fact that they couldn't read my mind helped considerably in enduring my prisonership.

read my mind helped considerably in enduring my prisonership. "Brandy, Cointreau, champagne and club soda are the ingredients."

I said.

"Yes, sir," the voice acknowledged, back on familiar ground.
"Ingredients noted."

I gave the proportions and the tall, potent drink appeared at my elbow. It was really an elongated Sidecar, but it was as heady as a drop from 5,000 feet. I had another and thought about dinner. I remembered Remelmons and

considered an elephant cutlet, but I was afraid that, unlike Bemelmans' chef, they would cut up an elephant for only one customer. So I ordered a simple steak, a baked potato, mixed greens, bread sticks and a decent red wine.

The trick now was to occupy myself till bedtime. The night were the worst. Last night I'd overdone it, drinking Chivas Regal straight, out of a brandy snifter, and had got to bed rather non compos. That had been a point for their side.

"This is do-it-yourself night," I decided, "Bring me the makings of a crystal set."

They had it all set up for me when I got to the hobby room and they'd goofed. They didn't often make mistakes, but this one was a pip. Instead of the components of a primitive radio receiver, they'd provided a glass-blowing outfit, complete with furnace, that would have passed muster at Steuben.

I laughed, a little more contemptuously than was warranted, and loftily explained their mistake. I could tell they didn't like my rubbing their noses in it (if they have noses), but there wasn't much they could do about it.

The section of the floor where they'd set up the miniature glass works dropped and I had a glimpse of violet mist down below before the floor came up again, this time with a work bench and the makines of a crystal set on it.

It was the first time I'd seen how they materialized things, escept for my sliding panel meals, and I was disappointed in them. Trapdoors It reminded me of the time I was one of the kids who rushed to the stage when Blackstone the Magician asked for volunteers. Blackstone was getting old then and maybe he was careless, but I had a revealing glimpse that took all the magicial-colouit.

But there was still a difference. I had known Blackstone was human and merely a skilled illusionist. I didn't know what these people were. I didn't even know if they were people. A SUDDENLY felt like shouting at them: "Who are you'.
What are you doing to me?" But
that would have given them too
much satisfaction. I knew in essence who they were and what I
was to them, and my salf-imposed
to maintain my composure, refuse
to be goaded into excesses. It was
obvious that they were looking
for my weaknesses and I had to
display as few so possible, however invitting it might seem at the
moment to inducite myself in their

I've never had a scientific mind. Fortunately the crystal set kit had detailed instructions and I was able to absorb myself in assembling it without frustration.

I had some vague hope that when I got it working, I'de shale to hear a live, uncensored broadcast, but, of course, they'd foresen that possibility. All I heard were harmless canned broadcast. They'd taped these, eliminating necessars and anything else that might have given me a clue to what was happening in the real world. I might as well have saved what was happening in the real world. I might as well have saved to the broad mahogany Magnavox in my bedroom or the limed oak Capshart in the living room.

They did leave some timeless commercials; for authenticity's sake, I suppose. But I wonder whether it was entirely by acci-

dent that the one the prisoner in up their Paradise heard through the ut carphones of the crystal set that on night was about new, improved the low.

It was the same with the television set. Everything was kinescope. They allowed me no newspapers or magazines and the books in the library had all been published before my capture.

I probably should put down a few facts for posterity. I don't know who will read them – they promise they won't, as long as I live, and I halfway believe them.

I wonder how long I'll live. How long do you keep a guinea pig? As long as if a useful to you. If it dies, or if you drive it crazy, you dispose of it and get yourself another one. Guinea pigs have to be expendable or they aren't guinea pies.

But I mustn't be pessimistic, even here in the supposed secrecy of my journal. Let's get on to the facts for you people in posterity.

Name: Oliver T. Bland – known as Ollie to my erstwhile friends. (They always call me Mr. Bland or Sir.)

Age: 34.

Occupation: guinea pig. All right, seriously: I used to be a copyreader on a big daily newspaper here in New York – one of those unromantic people who sees

to the grammar and spelling and guards against libel and constructs the headlines

"HERE in New York" is, of course, a phrase my respect for fact will not allow. I was captured in the city. That much I know. I've since been transferred, transported – whatever – to this seeming mansion which could be anywhere. On Earth, suspended above it, on the Moon – on Mars for all Lineau.

What I call my mansion—thinking of a big dog I once kept in a long enclosure—is Man-run 2. Nobody starts counting with 2, so there's another one, obviously, but they haven't told me yet who's in it. If a like to think it's another Earthman—misery loving company—but this could be a sort of interplanetary zoo.

But back to the known feets

But back to the known facts. Length of sentence: indefinite. The been here months, I imagine. The been here months, I imagine. Description of the sentence of

What else? Does it matter that I'm divorced? (I wonder if they think that's typical of our species.) She has custody of our son (Jason Robinson Bland) and has remarried. I thought of remarrying, too, but with alimony and support payments it was sort of impossible - except to a rich girl who wouldn't have to live on the remnants of my salary. Of course there was always Betty Forsythe -an amiable understanding homebody type, still living with her mother. Betty would have had me. She'd have scrimped along with me and loved it, poor

I wonder what my wife -exwife - thinks has become of me? Probably that I've chucked it and gone off to Tahiti or Alaska as I sometimes threatened. And Jace (Jason Robinson, aged three)? Does he still remember me? Or is be calling his sterfather Daddy

kid

now?

No more tonight, journal mine. I'm depressed and I mustn't be, if I'm to keep up my morale and resist them. I'll order a nightcap and go to

bed. What shall it be? Scotch is best, but I've drunk the best Scotch and I want a change . . . No, you devils, I won't indulge myself too far. I'll have a sensible glass of warm milk. Yes, dann you, milk. Then I'll sleep, and to-

I brush my teeth religiously and avoid sweets, to prevent developing a cavity. But suppose I did get one? A painful one? Would they let me suffer and study my reactions (God forbid they should take a clinical interest in human pain) or would they fill the tooth? And to fill it, would someone come? Or could they do it all by remote control?

They could put me to sleep and I'd never see the dentist. Anyhow, I brush my teeth religiously and I use dental floss.

June 25

THAT'S an arbitrary date. It could be right because they captured me on February 17 and think it's about four months. I picked it because June 25 is my

birthday and I felt like a party.

I ordered cafe au lait for breakfast, and a brioche. I don't have
breakfast in bed any more. Too
damn inconvenient.

I ate on the terrace overlooking the photomural of the meadow. As I drank my second cup and smoked a Murad (desiring nonchalance), I told the Ear it was my birthday and I wanted a present suitable for a 35-year-old boy.

That give him to pause, as I hoped it would. I'm becoming an accomplished Ear-baiter.

"A 35-year-old is not a boy," he said finally.

usly "This one is," I told him. "And dethis one wants a birthday presse I ent."

e? "Certainly, sir. What would you not like?" iid "I want a surprise, so the choice

"I want a surprise, so the choice is up to you. You should know me well enough now to pick something appropriate."

I guess he went away. At least he was silent for an hour while I got ready for my day. I soaked in the tub, shaved (safety razor, close), trimmed my fingernails, combed my hair (four months long) and dressed in a Scarlet Pimpernel outfit. It went with the hair. I ordered the costume complete with suff box, whose

dubious delights I postponed.

I was in the library having elevenses (scones and butter, Ceylon tea with milk) when the Ear announced his presence.

"Sir, we have decided on your birthday present."

I put down my cup and said,

"Yes?"

"We have carefully considered and have come to the conclusion that the present which would give you the most pleasure would be to acquaint you with — to employ

your terminology – the inhabitant of Man-run 1."
"Oh?" I said. I was doing my best to suppress my excitement.
"And what manner of creature

"And what manner of creature might that be?"

"A person of your species," the Ear said, "but of the opposite sex."

DON'T remember what I said to that, but I do know I realized I had to get out of the ruffler and velvet. She couldn't see me that way whoever she was And I ordered my first baircut

I was directed to the hobby room, where I found a harber chair set up. I sat down and scissors and comb came out of the back of the chair at the ends of metallic tentacles and went to work. (The same procedure. modified would have filled a cayity. I realized.)

As I was being barbered, I de-

cided what to wear. White-onwhite shirt. Solid blue knitted tie. Light gray flannel slacks, Dark gray Harris Tweed jacket, Black Italianate shoes. Blue anklet socks. Pack of Tareytons in the jacket pocket for her. (I always considered Tareytons a woman's cigarette, no doubt because of their ads.) As I retied my tie having got

it uneven the first time I asked the Ear: "How old is she?" "Twenty-three."

"Fine! Is she pretty?" "By your standards, yes." "Good enough. Does she know

it's my birthday?" "Ves" "Dose she know which hirth-

day?"

"No"

"No? Then do me a favor. When you meterialize the cake have thirty candles on it instead of thirty-five will you?"

"Certainly." There was a definite tinge of amusement in the voice

"No. make it twenty-nine. I don't look thirty-five do 12"

"My dear Mr Bland a man is as old as he feels "

If that was true I wasn't very old. I felt like any kid who was going to have a birthday party given for him. She came in through a door in

the living room which had always been locked before I was standing nervously by the sideboard, on which cocktail things had been set up, fingering my tie and wondering what I was going to say. Dance music came softly from the Capehart.

She certainly was pretty. Blonde, just a bit under average beight, wearing a short dinner gown that accentuated her slim waist and showed her shapely lerre

"Please come in." I said. "My name is Bland, Oliver Bland, Ollie to my friends."

The door remained open behind her and I saw a section of what I supposed was her living room. It seemed identical with mine

"How do you do," she said.

SHE walked toward me slowly, looking around. "My name is Margaret Purvis—Peggy for short." She held out her hand and

I took it briefly.

"Very glad to know you," I

very grad to know you. I said, shaking a little, but managing to control my voice. Not only another human being after all those months, but a pretty girll "Can I make you a drink? I have just about everythins."

"I know." She smiled. "Everything and nothing. I think I'll have a whiskey sour, if that's not too complicated."

"Not at all." I made two of them. She raised her glass to me and

said, "Happy birthday, Ollie. May your next one be happier."
"Thank you, But this one is ad-

mirable, thanks to you."

We finished our drinks and danced to the canned hi-fi and talked, trading backgrounds.

Peggy had been captured one morning on her way to work in the insurance office where she'd been a secretary. She'd got into a bus which had drawn up to the curb as usual, and not until she'd at down in the rear did she stop to think that the bus should have hene crowded.

By then, it was too late. The bus went into a tunnel (where no tunnel should have been) and in the darkness she went to sleep, or was put to sleep, with no rec-

wly, ollection of how. She woke up in se is Man-run 1.

or "What part of the city was it?"
I asked.

"The Near North Side," she said, and only then did I realize she wasn't from New York.

"Chicago?" I said.
"Yes, Isn't this Chicago?"

I gathered that Peggy's impression was that our luxurious prison was some underground experimental laboratory in or near her

former city.
"Who do you think the Ear is?"
I asked her.

"The Ear? Oh, you must mean the one I call Uncle. Well, I don't really know. Some rich old kindly mad scientist. I guess."

I made fresh drinks and told her about my capture. I'd been coming back from lunch and was alone in the elevator except for the operator. I'd said "Six" as usual, and when the car stopped, I automatically stepped out into

I automatically stepped out into the hall. Only it wasn't the sixth floor. The elevator door slid closed behind me and I blanked out as I was reaching for the button. I woke up in Man-run 2.

July 4, 9 a.m.

PEGGY and I have been getting along famously, considering that she has a mind of her own and our courtship hasn't been exactly smooth. My long isolation evidently made me forget how inritating women can sometimes be.

Whoever said men were the practical ones and women the romantics didn't know Peggy and me. I was the romantic. Here we were, my thoughts ran, to all intents and purposes the last man and the last woman. (Or the first?) Obviously the thing to do then, since escape was impossible, was to settle down and perpetuate the race.

I didn't look at it quite so coldly, of course, but that's what it amounted to

Peggy wouldn't admit there was no way out. And she made it clear that she'd have nothing to do with a man who did. All too often, when I'd arranged a romanic at mosphere with soft lights and music, she'd sit up straight with some practical thought, like breaking through the ceiling to the straight of the she will be the straight of the she will be she

herself.

So I'd break through the ceiling again and show her the big impenetrable metallic dome above, which sealed in the manruns and the acre or so of recreation space beyond them. Then I'd break through a wall, exposing the wiring and plumbing and air-conditioning pipes—and the same metal barries.

And the Ear patiently cleaned up after me. Finally I proved to Peggy's satisfaction not only that there was no way out, but that, by looking for one, I'd been willing to lose the creature comforts of captivity. Now we could be married. I pictured a simple little cere-

mony, Peggy and I reading aloud the words of a civil wedding ceremony—or a religious service, if she wanted one—and exchanging rings and vows.

"I want a church wedding," Peggy announced.

"But, Peggy -"
"With organ music and a choir.
And a minister," she said. "It has

to be legal."

I groaned. "What you're saying, then, is that you won't marry
me."

"Ollie Bland, I said no such thing. But a wedding is what a girl dreams of and plans for years. It's no good being the best-dressed woman if there's nobody to look

"Til look at you."

"That's not enough, Ollie. I want to be shown off to others e and I want to go places. Havana, New Orleans, Paris..."

She went on like that for quite

a while. Then the Ear spoke up.
It was a relief to hear another
voice.
"I can arrange a church wed-

ding," he said.

The Ear had a white satin wed-

ding gown whisked out and laid

at Peggy's feet. That shut her up while he turned the hobby room into a chapel whose construction blended in exactly with a projection on the wall of a filmed marriage service, with organ, choir and all.

The film clip was beautifully edited so Peggy and I could make the responses to the projected minister's questions. The Ear assured us it was a film of an actual wedding and that the minister was genuine, not a Hollywood

But as we were running through the rehearsal, Peggy said: "Where's the marriage hoense! I'd like to see you fake that!"

I blew up then and Peggy fled in tears to Man-run 1.

Later
THAT was yesterday. Peggy
locked her door last night and
I haven't seen her all morning.
I was enjoying my solitary
lunch—a strictly non-feminine
hero sandwich and a quart of
beer—when the Ear announced

his presence.

"I have a present for you, Mr. Bland."

"I haven't recovered from the

"I haven't recovered from the last one yet," I said, meaning Peggy.

"The present is your freedom.

Your term is up."

It took a while to sink in. While it was sinking, the Ear explained

that both Peggy and I would be room set down on Earth anywhere we chose, with a pleasant amount of money (genuine) to reimburse us for the loss of our time.

I knocked on Peggy's door. She'd already heard the news.

She'd already heard the news.

"Will you go to New York with
me. Peggy?" I asked.

me, Peggy?" I asked.

She laughed. "I will not. A girl doesn't want to marry the first man who asks her. I want to look around. I'm going back to Chi-

I must admit I wasn't too terribly crushed.

cago."

The Ear had me set down in yold office building late in the day. There were few people around, it being the Fourth of July—Independence Day. I could imagine the Ear enjoying his pleasant little joke.

I went through the file of back

copies of the newspaper to see what had been happening in the world in the past several months. Same old thing – alarms, excussions, crises and a few governments changing hands. I hadn't really missed anything in that department. What I had missed was human commanionship, female

human companionship, female and of my own choice. This world, at least, was full of girls. And my pockets were full of money. I went out on the town.

Two weeks later, my pockets were considerably emptier and

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my hunger for female companionship considerably hatherd. It had a wow of a time—one wow after another—but now that my fling was over, I realized that this wasn't my idea of living, Maybe I was getting Old, but what I really wanted was not women, but one woman with whom I could enjoy the pleasures of quiet and could enjoy the pleasures of quiet and could enjoy the pleasures of quiet and another of the companion of the could be another of the could enjoy the pleasures of quiet and the could enjoy the pleasures of quiet and the could be companion to the could be companion to the standard of the could be companion.

my mind. I looked her up.
"Betty," I said one evening as
we sat on the couch at her place
(a homebody, my Betty was, bless
her), "would you go to the ends
of the Earth with me?"
"Even heyond. Oliver," said the

complaisant Betty. This was the girl for me.

"Do you hear that, Ear?" I asked, He'd told me he would be

within earshot, so to speak, for a while. "I heard, Mr. Bland," his voice

said.
"I'll sign up for that second

term now," I told him.
"Excellent," the Ear said. "But
I must remind you that the second term will be considerable
longer Unfortunately I can't give

you the reasons."
"Say no more." I could imagine there might be a long spaceship journey, or an upcom-

ing kink in communications bed tween our worlds. "Who could be weary of Paradise?"

Betty had said nothing, waiting patiently for me to explain when I saw fit. I'd never told her about the Ear, but she didn't require a long explanation. She had surreme faith in me

"Whatever you say, Oliver dear," Betty assured me, and the next day we went to City Hall and got the marriage license.

January 27
WELL, here we are back at the old stand, journal mine.

I've arranged with the Ear to enlarge Man-run 2 for me right to the edge of the dome. Now it includes a bit of synthetic insectless outdoors — a stream gurgling through a grove of quite realistic trees and compliant fish that bite at anything.

to 9 to 5 five days a week (some-

times six or seven). I have a salary and I get raises periodically and once I went on strike for a pension plan. The Ear is a good boas. He praises me when I we done a particularly fine piece of work (I'm cataloguing the characters in Dicken's novels). A man likes to be told when he's doing a sood ioh.

Betty (I almost wrote "Peggy") and I have our separate bedrooms. It seems to be better that

way. In fact, she has all of Manrun 1 to retire to when she sees fit. She often does

Here she comes now. I've asked her not to interrupt me when I'm working. Listen to my automatic

answers, dear posterity. They may

come in handy. "Well what is it now? "Oh, you're all dressed up and

have no place to so? How originally you put it, darling.

"And it's no good being the

best-dressed woman if there's nobody to look at you? I look at

you, don't 1? "That's not enough, eh? You

want to be shown off to others? Now where have I heard that before?

"Oh. I'm hateful am I? Go ahead and cry . . . Well, frankly, I wish you could go home to Mother, too,"

Me. I'm going fishing. - RICHARD WILSON

+ + + + +

FORECAST Hitherto a stranger hereabouts, H. Beam Piper tauches down next month with GRAVEYARD OF DREAMS, a novelet that, despite its title, is a vividly alive picture of an immensely distant planet with a cosmic headache . . . and one man with a headache bigger still. Far Shakespeare was wrong; wealth and name are both drass campared with the theft of hope - and Maxwell has to rob a whole world of it!

BREAD OVERHEAD! reveals Fritiz Leiber in a playful mood . . . tigerishly toying with an explasive passibility that has its fuse right in the here-and-now-present . . . a fuse that same go-getting genius could be lighting at this very minute. Nuclear weapans? Biological warfare? No. it's something far more distressing. The Staff of Life suddenly and disconcertinaly sprouts wings - and mankind has to ent crowl

In the third povelet of next month's issue, Lloyd Biggle, Jr. leads the search for THE RULE OF THE DOOR, a simple principle that bafflingly refuses to stay simple. If nobody up there likes the barbaric natives of this backward little planet . . . why can't Skarn

come to prev and at least stay to scoff? Along with a handsome set of short stories and our regular

features. Willy Ley presents. For Your Information, A CENTURY OF NEW ANIMALS . . . a stunning zoo parade that would have been unthinkable, even unquessable, only a hundred years ago. Nor is the safari over There's a road man for future explorers who want their names to appear in print in 20581



THE SEEDLING STARS by James Blish. Gnome Press, N. Y., \$3.00

G NOME has assembled several of Blish's pantropy yarns under one cover and, fortunately, without any attempt to unify them into novel form except as progressive sections of Man's program for seeding the Universe with his own kind.

That requires clarification. "Pantropy" means changing everything, so that instead of undertaking the virtually impossible task of altering alien environments to meet mankind's rigid requirements, Man has undertaken the virtually impossible task of altering himself to fit the environments. It is a fascinating theme that has entranced others with its plot possibilities, but Bliefs are easily the peers of any rival stories of this type.

The first section concerns the efforts of the Port cops to regain custody and control of the first successful colony of Altered Men on Ganymede through the services of a manufactured Quisling, grown on the Moon for that sole purpose and increasable of normal human and increasable of normal human

contact due to his alien metabo-

liam. Blish, incidentally, gives out with a frightening and sobering side thought. The Port cops are an outgrowth of a present-day evil, the modern Port Authority, which has grown from its limited purpose of improving highway communication by bridge and tunnel construction to its present dominant position of airport and terminal position of airport and terminal landford. In Blish's story, it has

taken over government as well.

Books II and III chronicle the fight for survival of two separate colonies. III was seen in this magazine as "Surface Tension" and is a wonderful yarn of microscopic men

dwelling in a pond.

Book IV is an object lesson in intolerance; the point has been reached when the basic human type is no longer in the majority. How does he comport himself as a minority?

A thought-provoking job.

A KEY TO THE STARS by R. van der R. Woolley, Philosophical Library N. Y. \$4.75

DR. Woolley is the present Astronomer Royal and his book is the third edition of a volume which first appeared twenty years ago. Very little alteration has been needed because the work was aimed at the layman and dean with elementary astronomy and astro-physics which have undergone very little change.

The book is lucid and concise

and Dr. Woolley has fortunately not left his sense of humor in the observatory.

DISCOVERY OF THE UNI-VERSE by G. de Vaucouleurs. The Macmillan Co., N. Y., \$6.00

FINHE purpose of de Vaucouleurs' latest book is as an outline of the history of astronomy from prehistoric times to the present To a considerable extent be has avoided inevitable overlap of previous works by combining a comprehensive study of virtually all the important milestones in theory and observation with an exhaustively compact section on post-war discoveries and the startling new theories that have resulted. A new stellar type as differentiated from the classic nova, is the "flare type" sun, one specimen of which increased its brightness a hundredfold in twenty seconds!

The concept that I found most intriguing is truly stupendous in scope. According to this, our galaxy is a small part of a huge, cloudlike, lens-shaped super-galaxy, perhaps 50 million light-years in diameter.

However, what appears to be the greatest advance in the past decade has been the rise of radioastronomy. The limited observational field offered by the visible passage spectrum is infinitesimal compared ship of to that of radio frequencies.

Add this to your list of shouldgets for your astronomical shelf.

THE GREEN ODYSSEY by Philip José Farmer, Ballantine Books, N. Y., \$2.75

A T first glance, this would seem to be a routine space opera, complete with heroic tenor, particularly since a symbiote makes the hero virtually invulnerable. But maybe you have also noticed lately the revulsion of many authors to the John Carter-Kimball Kinnison Ivand of hem

The Farmer boy is big, handsome, blond and strong, a cutaway on a planet of short, dark people. He is also large, custions to the point of timidity and not very bright. A good thing he was applied with his CX symbiote that increases strength, repairs vounds and replaces lost parts and sho that he managed to pick up and Amazon of a native wife, a slave like him, who combines beauty and intelligence with five kids, one of them bids.

He has managed to get himself installed as a gigolo to the local duke's voluptuous but bath-needing wife, and overhearing that two strangers have come from the sky in a strange ship and are being held in a distant city, he arranges

le passage there with a merchant d ship captain.

Though a slave, he gives the captain a financial plan that offers sufficient gain to overcome refuctance to help a fugitive. He thinks he's lamming on his wife, but she's a heap smarter than he is.

The story has the flavor of de Camp's famous series, the nau-tical atmosshere being supplied.

an interesting concept in dry-land shipping-wind rollers, sailing vessels of the plains.

Farmer throws in pirates for plot and floating islands for mystery and almost makes a mishmash of the endins, but doesn't.

THE INEXPLICABLE SKY by Arthur Constance. The Citadel Press, N. Y., \$3.95

VERY coincidentally, this month includes two works by Englishmen who are at loggerheads.

Dr. Woolley, the Astronomer Royal, quite cavalierly ignores the existence of Mr. Constance in his book. Mr. Constance, however, is deeply resentful of his scoffing at flying saucer investigation and misses no opportunity to use Woolley as pincushion.

He as assembled an enormous library of clippings, including the Charles Fort collection and, like Fort's works, the sheer weight of strange reports makes for a grade. ing credulity on the part of the

STAR BORN by Andre Norton. World Publishing Co., N. Y. Cleveland, \$2,95

M ISS Norton has produced a Stars Are Oural, her supern jusery and the supern juto judge one work in terms of another, but that doesn't apply to sequels—they demand comparison. In this instance, the standard set by the original story was so high as to obviete any possibility of parity on the part of any subsequent your theorem.

The descendants of the fugitives from Earth's dictatorship have slipped backward in the course of time and lost almost all of their materialistic knowledge. In compensation, though, they have acquired a degree of telepathic ability that enables them to survive on Astra. where most higher life-

forms possess the Mind Touch. Dalgard Nordis, a youth aspiring toward maturity, embarks on the normal matriculating explora-

ing toward maturity, emberks on the normal matriculating exploration with his merman companion. Sesuri. They are aware of strange activity in a city of Those Others, the now vanished, erstwhile masters of the planet. Unknown to them, an expedition from Earth has landed and complications ensue. The vanished race is very much alive.

THE MODERN UNIVERSE by Raymond A. Lyttleton. Harper & Brothers, N. Y., \$3.50 THIS easily digested book is based on a series of television

programs given by the author over the B.B.C. He has, with wisdom, divided his text into six logically successive sections: Earth; Moon, Planets & Comets; Sun; Stars and Galaxy; The Expanding Universe. A good introduction to astronomical theory.

-FLOYD C. GALE

To Be Published Soon

DOUBLE JEOPARDY

by Fletcher Pratt

GALAXY Science Fiction Novel #30

Like every farmer on every planet, Duncan had to hunt down anything that damaged his cross-even though he was aware this was-

The World

That Couldn't Be

By CLIFFORD D. SIMAK

Illustrated by GAUGHAN

HE tracks went up one row and down another, and in those rows the vue plants had been sheared off an inch or two above the ground. The raider had been methodical; it had not wandered about haphazardly, but had done an efficient job of harvesting the first ten rows on the west side of the field. Then, having eaten its fill, it had angled off into the bush-and that had not been long ago, for the soil still trickled down into the great pur marks. sunk deep into the finely cultiveted form

Somewhere a sawmill bird was whirring through a log, and down





THE WORLD THAT COULDN'T BE

in one of the thorn-choked ravines, a choir of chatterers was clicking as through a ghastly morning song. It was going to be a scorcher of a day. Afready the smell of desicated dust was rising from the ground and the glare of the newly risen sun was dancing off the bright leaves of the hula-trees, making it appear as if the bush were filled appear as if the bush were filled

with a million flashing mirrors.

Gavin Duncan hauled a red bandanna from his pocket and mopped his face.

"No. mister." pleaded Zikkara.

the native foreman of the farm.
"You cannot do it, mister. You do
not hunt a Cytha."
"The hell I don't," said Duncan,

but he spoke in English and not the native tongue.

a flat expanse of sun-cured grass interspersed with thickets of hulascrub and thorn and occasional groves of trees, criss-crossed by treacherous ravines and spotted with infrequent waterholes.

It would be murderous out there, he told himself, but it shouldn't take too long. The beast probably would lay up shortly after its pre-dawn feeding and he'd overhaul it in an hour or two. But if he failed to overhaul it, then he must keep on.

"Dangerous," Zikkara pointed out. "No one hunts the Cytha." "I do," Duncan said, speaking

now in the native language. "I

hunt anything that damages my crop. A few nights more of this and there would be nothing left."

JAMMING the bandanna back into his pocket, he tilted his hat lower across his eyes against the sun.

"Now listen," Duncan told it sharply. "Before I came, you'd feast one day, then starve for days on end; but now you eat each

on end; but now you eat each day. And you like the doctoring, Before, when you got sick, you died. Now you get sick, I doctor you, and you live. You like staying in one place, instead of wandering all around."
"Mister, we like all this," said.

Zikkara, "but we do not hunt the Cytha."

"If we do not hunt the Cytha,

we lose all this," Duncan pointed out. "H I don't make a crop, I'm licked. I'll have to go away. Then what happens to you?"
"We will grow the corn our-

"We will grow the corn ourselves."
"That's a laugh," said Duncan.

"and you know it is. If I didn't kick your backsides all day long, you wouldn't do a lick of work. If I leave, you go back to the bush. Now let's go and get that Cytha."

"But it is such a little one, mister! It is such a young one! It is scarcely worth the trouble. It would be a shame to kill it."

Probably just slightly smaller
than a horse, thought Duncan,
watching the native closely.

It's scared, he told himself. It's scared dry and spitless.

scared dry and spitless.

"Besides, it must have been most
hungry. Surely, mister, even a

Cytha has the right to eat."

"Not from my crop," said Duncan savagely. "You know why we grow the vua, don't you? You know it is great medicine. The berries that it grows cures those who are sick inside their heads. My people need that medicine—need it very badly. And what is more, out

very badly. And what is more, out there—" he swept his arm toward the sky—"out there they pay very much for it."

"But, mister ..."
"I tell you this," said Duncan gently, "you either dig me up a

bush-runner to do the tracking for me or you can all get out, the kit and caboodle of you. I can get other tribes to work the farm," "No, mister!" Zikkara screamed in desperation

in desperation.

"You have your choice," Duncan told it coldly.

HE plodded back across the field toward the house. Not much of a house as yet. Not a great deal better than a native shack. But someday it would be, he told himself. Let him sell a crop or two and he'd build a house that would really be a house. It would have a

bar and swimming pool and a garden filled with flowers, and at last, after years of wandering, he'd have a home and broad acress and everyone, not just one lousy tribe, would call him mister. Gavin Duncan planter, he said

to himself, and liked the sound of it. Planter on the planet Layard. But not if the Cytha came back night after night and ate the vua plants

plants.

He glanced over his shoulder and saw that Zikkara was racing

for the native village.

Called their bluff, Duncan informed himself with satisfaction.

He came out of the field and

walked across the yard, heading for the house. One of Shotwell's shirts was hanging on the clothestine, limp in the breathless morning.

Damn the man, thought Duncan. Out here mucking around with those stuppd natives, always asking questions, always under foot. Although, to be fair about it, that was Shotwell's job. That was what the Sociology people had sent him out to do.

Duncan came up to the shack, pushed the door open and entered. Shotwell, stripped to the waist,

t was at the wash bench.
Breakfast was cooking on the
stove, with an elderly native act-

stove, with an elderly native acting as cook.

Duncan strode across the room and took down the heavy rifle from its per He slanged the ac-

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tion open slapped it shut again. Shotwell reached for a towel. "What's going on?" he asked "Cutha got into the field"

*Cytha?" "A kind of animal," said Dun-

can "It ate ten rous of yea" "Big? Little? What are its char-

actoristics?" The native began putting breakfast on the table. Duncan walked to the table, laid the rifle across one corner of it and sat down. He poured a brackish liquid out of a

hie stew pan into their cups. God, he thought, what I would give for a cup of coffee.

CHOTWELL outled up his chair. "You didn't answer me. What is a Cytha like?" "I wouldn't know," said Duncan,

"Don't know? But you're going after it, looks like, and how can you hunt it if you don't know-" "Track it. The thing tied to the other end of the trail is sure to be the Cytha. We'll find out what it's like once we catch up to it."

"We?"

"The natives will send up some. one to do the tracking for me. Some of them are better than a

dog." "Look, Gavin, I've put you to a lot of trouble and you've been decent with me. If I can be any help, I would like to go."

"Two make better time than three And we have to catch this

Cytha fast or it might settle down to an endurance contest." "All right, then. Tell me about

the Cytha."

Duncan poured porridge gruel

into his how! handed the non to Shotwell, "It's a sort of special thing. The natives are scared to death of it You hear a lot of stories about it Gold to be unkillable It's always canitalized always a proper noun. It has been reported at different times from undely scattered places."

"No one's ever begged one?" "Not that I ever heard of." Duncan patted the rifle. "Let me get a head on it."

He started eating spooning the porridge into his mouth, munching on the stale corn bread left from the night before. He drank some of the brackish beverage and shuddered "Some day," he said, "I'm going

to scrape together enough money to buy a pound of coffee. You'd think-" "It's the freight rates," Shotwell

said. "I'll send you a pound when I an back." "Not at the price they'd charge to ship it out," said Duncan, "I

wouldn't hear of it." They ate in silence for a time, Finally Shotwell said: "I'm getting nowhere Gavin. The natives

are willing to talk, but it all adds up to nothing* "I tried to tell you that, You

could have saved your time."

Shotwell shook his head stubbornly. "There's an answer, a logical explanation. It's easy enough to say you cannot rule out the sexual factor, but that's exactly what has happened here on Layard. It's easy to exclaim that a sexless animal, a sexless race, a sexless planet is impossible, but that is what we have. Somewhere there is a memorar and I, have to find it."

"Now hold up a minute,"
Duncan protested. "There's
no use blowing a gasket. I haven't
got the time this morning to listen
to your lecture."

"But it's not the lack of sex that worries me entirely," Shotwell said, "although it's the central factor. There are subsidiary situations deriving from that central fact which are most intriguing."

"I have no doubt of it," said Duncan, "but if you please..."

"Without sex, there is no basis for the family, and without the family there is no basis for a tribe, and yet the natives have an elaborate tribal setup, with taboos by way of regulation. Somewhere there must exist some underlying, basic unifying factor, some common loyalty, some strange relationship which spells out to brother-best?"

"Not brotherhood," said Duncan, chuckling, "Not even sisterbood. You must watch your ter-

minology. The word you want is ithood."

The door pushed open and a native walked in timidly.

"Zikkara said that mister want me," the native told them. "I am Sipar. I can track anything but screamers, stilt-birds, longhorns and donovans. Those are my ta-

"I am glad to hear that," Duncan replied. "You have no Cytha taboo, then,"

"Cytha!" yipped the native. "Zikkara did not tell me Cytha!"

Duncan paid no attention. He got up from the table and went to the heavy chest that stood against one wall. He rummaged in it and came out with a pair of binoculars, a bunting knife and an extra drum of ammunition. At the kitchen cupboard, he rummaged once again, filling a small leather sack with a gritty powder from active the control of the contro

"Rockahominy," he explained to Shotwell. "Emergency rations thought up by the primitive North American Indians. Parched corn, ground fine. It's no feast exactly, but it keeps a man going."
"You four you'll be gone that

a can be found.

long?"
 "Maybe overnight. I don't
 know. Won't stop until I get it.
 Can't afford to. It could wipe me

Can't afford to. It could wipe me out in a few days."

"Good hunting," Shotwell said.

"I'll hold the fort."

Duncan said to Sipar: "Quit sniveling and come on." men in the twenty years since He nicked up the rifle, settled Earthmen had come to Layard. it in the crook of his arm. He kicked open the door and strode out.

Sinar followed meekly.

п

OUNCAN got his first shot late in the afternoon of that first

In the middle of the morning. two hours after they had left the farm, they had flushed the Cytha out of its had in a thick raying But there had been no chance for a shot. Duncan saw no more than a huge black blur fade into the bush.

Through the bake-oven afternoon, they had followed its trail. Siner tracking and Duncan bringing up the rear, scanning every piece of cover, with the sun-hot rifle always held at ready.

Once they had been held up for fifteen minutes while a massive donovan tramped back and forth. screaming, trying to work up its courage for attack. But after a quarter hour of showing off, it decided to behave itself and went

off at a shuffling gallop. Duncan watched it on with a lot of thankfulness. It could soak up a lot of lead, and for all its awkwardness it was handy with

its feet once it set itself in mo-

With the beast gone, Duncan looked around for Siner. He found it fast asleep beneath a hula-shrub. He kicked the native awake with something less than gentleness and

tion. Donovans had killed a lot of

they went on again. The bush swarmed with other animals, but they had no trouble with them

Sipar, despite its initial reluctance, had worked well at the trailing. A misplaced bunch of grass. a twig bent to one side, a displaced stone, the faintest pug mark were Sinar's stock in trade. It worked like a lithe, well-trained hound. This bush country was its special province: here it was at home.

With the sun dropping toward the west they had climbed a long. steen hill and as they neared the top of it, Duncan hissed at Sipar. The native looked back over its shoulder in surprise Duncan made motions for it to stop tracking.

The native crouched and as Duncan went past it he saw that a look of agony was twisting its face. And in the look of agony he thought he saw as well a touch of pleading and a trace of hatred. It's scared, just like the rest of them. Duncan told himself. But

what the native thought or felt had no significance: what counted was the beast ahead. Duncan went the last few yards

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on his belly, pushing the gun ahead of him, the binoculars bumping on his back. Swift, vicious insects ran out of the grass and swarmed across his hands and arms and one got on his face and bit him.

H E made it to the hilltop and lay there, looking at the sweep of land beyond. It was more of the same, more of the blisteing, dusty slogging, more of thorn and tangled ravine and awful emptiness.

He lay motionless, watching for a hint of motion, for the fitful shadow, for any wrongness in the terrain that might be the Cytha.

But there was nothing. The land lay quiet under the declining sun. Far on the horizon, a herd of some sort of animals was grazing, but there was nothing eleg-

Then he saw the motion, just a flicker, on the knoll ahead—about halfway up.

He laid the rifle carefully on the ground and hitched the binoculars around. He raised them to his eyes and moved them slowly back and forth. The animal was there where he had seen the motion.

It was resting, looking back along the way that it had come, wastering for the first sign of its trailers. Duncan tried to make out the size and shape, but it blended with the grass and the dun soil and he could not be sure exactly what it looked like.

He lef the glasses down and now that he had located it, he could an distinguish its outline with the ed naked eye.

His hand reached out and slid the rifle to him. He fitted it to his shoulder and wriggled his body for closer contact with the ground. The cross-hairs centered on the faint outline on the knoll and then the best steed up.

It was not as large as he had thought it might be — perhaps a little larger than Earth lion-size, but it certainly was no lion. It was a square-set thing and black and inclined to lumpiness and it had an awkward look about it, but there were strength and ferociousness as well.

Duncan tilted the muzzle of the rifle so that the cross-hairs centered on the massive neck. He drew in a breath and held it and began the trigger squeeze. The rifle bucked hard against

his shoulder and the report hammered in his head and the beast went down. It did not turch or fall; it simply melted down and diappeared, hidden in the grass.

appeared, hidden in the grass.

"Dead center," Duncan assured

He worked the mechanism and the spent cartridge case flew out. The feeding mechanism snicked and the fresh shell clicked as it slid into the breach

He lay for a moment, watching. And on the knoll where the thing had fallen, the grass was twitching as if the wind were blowing, only there was no wind. But despite the twitching of the grass, there was no sign of the Cytha. It did not struggle up again. It stayed where it had fallen.

Duncan got to his feet, dug out the bandanna and mopped at his face. He heard the soft thud of the step behind him and turned his head. It was the tracker. "It's all right. Sions" he said.

"You can quit worrying. I got it. We can go home now."

IT had been a long, hard chase, longer than he had thought it might be. But it had been successful and that was the thing that counted. For the moment, the vua crop was safe.

He tucked the bandanna back

into his pocket, went down the slope and started up the knoll. He reached the place where the Cytha had fellen. There were three small gouts of torn, mangled fur and flesh lying on the ground and there was nothing else.

He spun around and jerked his rifle up. Every nerve was screemingly alert. He swung his head, searching for the slightest movement, for some shape or color that was not the shape or color of the bush or grass or ground. But there was nothing. The heat droned in the hush of afternoon. There was not a breath of movine air. But

ing there was danger—a saw-toothed thy sense of danger close behind his ite neck.

"Sinur!" he called in a tense

"Sipar!" he called in a tense whisper, "Watch out!" The native stood motionless, un-

heeding, its eyeballs roiling up until there was only white, while the muscles stood out along its throat like straining ropes of steel. Duncan slowly swiveled, rifle

Duncan slowly swiveled, rifle held almost at arm's length, elbows crooked a little, ready to bring the weapon into play in a fraction of a second.

Nothing stirred. There was no more than emptiness—the emptiness of sun and molten sky, of grass and scraggy bush, of a brown-and-yellow land stretching into foreverness.

Step by step, Duncan covered the hillside and finally came back to the place where the native squatted on its heels and moaned, rocking back and forth, arms locked tightly across its chest, as if it tried to cradle itself in a sort of illusory comfort.

The Earthman walked to the place where the Cytha had failen and picked up, one by one, the bits of bleeding flesh. They had been mangled by his bullet. They were limp and had no shape. And it was queer, he thought. In all his years of hunting, over many planets, he had never known a bullet to rin out hunter of flesh to the place of the place

He dropped the bloody pieces

back into the grass and wiped his hand upon his thighs. He got up a little stiffly.

He'd found no trail of blood leading through the grass, and surely an animal with a hole of that size would leave a trail.

And as he stood there upon the hillside, with the bloody fingerprints still wet and glistening upon the fabric of his trousers, he felt the first cold touch of fear, as if the fingertips of fear might momentarily, almost casually, have

He turned around and walked back to the native, reached down and shook it. "Snap out of it," he ordered. He expected pleading, covering.

trailed across his heart.

terror, but there was none.

Sipar got swiftly to its feet and stood looking at him and there was, he thought, an odd clitter in

its eyes.

"Get going," Duncan said. "We still have a little time. Start circling and pick up the trail. I

circling and pick up the trail. I will cover you."

He glanced at the sun. An hour

and a half still left-maybe as much as two. There might still be time to get this buttoned up before the fall of night.

A half mile beyond the knoll.

Siper picked up the trail again and they went ahead, but now they traveled more cautiously, for any bush, any rock, any clump of grass

might conceal the wounded beast.

Duncan found himself on edge
and cursed himself savagely for

it. He'd been in tight spots before. This was nothing new to him. There was no resson to get him-self tensed up. It was a deadly business, sure, but he had faced others calmly and walked away from them. It was those frontier tales he'd heard about the Cythathe kind of superstitious chatter that one always heard on the edge

He gripped the rifle tighter and went on.

of unknown land

No animal, he told himself, was unkillable.

Half an hour before sunset, he

called a halt when they reached a brackish waterhole. The light soon would be getting bad for shooting. In the morning, they'd take up the trail again, and by that time the Cytha would be at an even greater disadvantage. It would be stiff and slow and weak. It might be even dead.

Duncan gathered wood and built a fire in the lee of a thornbush thicket. Sipar waded out with the canteens and thrust them at arm's length beneath the surface to fill them. The water still was warm and evil-tasting, but it was

fairly free of scum and a thirsty man could drink it. The sun went down and darkness fell quickly. They dragged more wood out of the thicket and piled it carefully close at hand. Duncan reached into his pocket and brought out the little bag of rockshominy.

"Here," he said to Sipar. "Sup-

per."

The native held one hand cupped and Duncan poured a little mound into its palm.

"Thank you, mister," Sipar said.

"Huh?" asked Duncan, then caught what the native meant. "Dive into it," he said, almost kindly. "It isn't much, but it gives you strength. We'll need strength tomorrow."

FOOD-giver, eh? Trying to butter him up, perhaps. In a little while, Sipar would start whining for him to knock off the hunt and head back for the farm.

Although, come to think of it. be really was the food-giver to this bunch of sexiess wonders. Corn. thank God, grew well on the red and stubborn soil of Layard-good old corn from North America Fod to hogs, made into corn-pone for breakfest back on Forth and here on Layard, the staple food crop for a gang of shiftless varmints who still regarded, with some good solid skepticism and round-eved unnder this unorthodox idea that one should take the trouble to grow plants to eat rather than go out and scrounge for them.

Corn from North America, he

the vus of Leyard. And that was the way it went. Something from one planet and something from another and still something further from a third and so was built up through the wide social confederacy of space a truly cosmic culture which in the end, in another ten thousand years or so, might spell out some way of life with more sanity and understanding

thought, growing side by side with

He poured a mound of rockahominy into his own hand and put the bag back into his pocket. "Sipar."
"Yes. mister?"

than was evident today.

"You were not scared today when the donovan threatened to attack us."

"No, mister. The donovan would not hurt me."
"I see. You said the donovan

was taboo to you. Could it be that you, likewise, are taboo to the donovan?"

"Yes, mister. The donovan and I grew up together."
"Oh. so that's it," said Duncan.

He put a pinch of the parched and powdered corn into his mouth and took a sip of brackish water. He chewed reflectively on the resultant mesh.

He might go ahead, he knew, and ask why and how and where Sipar and the donovan had grown up together, but there was no point to it. This was exactly the kind of tangle that Shotwell was for-

Half the time, he told himself, I'm convinced the little stinkers are doing no more than pulling our less.

What a fantastic bunch of jerks! Not men, not women, just things. And while there were never babies, there were children, although never less than eight or nine years old. And if there were no babies, where did the gight.

and nine-year-olds come from?

""I SUPPOSE," he said, "that
these other things that are
your taboos, the stiltbirds and the
screamers and the like, also grew
up with you."

"That is right, mister."
"Some playground that must have been," said Duncan.

He went on chewing, staring out into the darkness beyond the ring of firelight.

"There's something in the thorn bush, mister."

"I didn't hear a thing."
"Little pattering. Something is running there."

Duncan listened closely. What Sipar said was true. A lot of little things were running in the thicket. "More than likely mice," he said.

He finished his rockahominy and took an extra swig of water, gagging on it slightly.

gagging on it slightly. "Why, ours, of course," s "Get your rest," he told Sipar. Sipar, and went back to sleep.

"Til wake you later so I can catch a wink or two." "Mister," Sipar said, "I will

stay with you to the end."
"Well," said Duncan, somewhat
startled, "that is decent of you."

"I will stay to the death," Sipar promised earnestly.

"Don't strain yourself," said Duncan.

He picked up the rifle and walked down to the waterhole. The night was quiet and the

land continued to have that empty feeling. Empty except for the fire and the waterhole and the little micelike animals running in the thicket.

And Sipar—Sipar Iving by the

fire, curled up and sound saleepalready. Naked, with not a weapon to its hand—just the naked animal, the basic humanoid, and yet the hand purpose that at times was haffling. Scared and shirt in the sale that morning at mere mention of the Cytha, yet never faltering on the trail; in pure funk back there on the knoll where they had lost the Cytha, but now ready to yo on to the death.

Duncan went back to the fire and prodded Sipar with his toe. The native came straight up out of sleep.

"Whose death?" asked Duncan.
"Whose death were you talking

of?"
"Why, ours, of course," said

DUNCAN did not see the arrow coming. He heard the swishing whistle and felt the wind of it on the right side of his throat and then it thunked into a tree behind him.

He leaped aside and dived for the cover of a tumbled mound of boulders and almost instinctively his thumb pushed the fire control of the rifle up to automatic. He crouched behind the jumbled

rocks and peered ahead. There was not a thing to see. The hulatrees shimmered in the blaze of sun and the thorn-bush was gray and lifeless and the only things astir were three stilt-birds walking gravely a quarter of a mile away. "Sibari" he whispered.

"Here, mister."

"Keep low. It's still out there." Whatever it might be. Still out there and waiting for another shot. Duncan shivered, remembering the feel of the arrow flying past his throat. A hell of a way for a man to die— out at the tail-end of nowhere with an arrow in his throat and a scared-stiff native heading back for home as fast as it could zo.

He flicked the control on the rifle back to single fire, crawled around the rock pile and sprinted for a grove of trees that stood on higher ground. He reached them and there he flanked the spot from which the arrow must have come. He unlimbered the binoculars and glassed the area. He still saw

no sign. Whatever had taken the pot shot at them had made its getaway.

He walked back to the tree

He walked back to the tree where the arrow still stood out, its point driven deep into the bark. He grasped the shaft and wrenched the arrow free.

"You can come out now," he called to Sipar. "There's no one around."

The arrow was unbelievably crude. The unfeathered shaft looked as if it had been battered off to the proper length with a jagged stone. The arrowhead was unflaked flint picked up from some outcropping or dry creek bed, and it was sukwardly bound to the shaft with the tough but pliant input hark of the bullatree.

"You recognize this?" he asked Sipar.

The native took the arrow and examined it. "Not my tribe." "Of course not your tribe. Yours wouldn't take a shot at us. Some

wouldn't take a shot at us. Some other tribe, perhaps?" "Very poor arrow." "I know that But it could kill

you just as dead as if it were a good one. Do you recognize it?" "No tribe made this arrow," Sipar declared.

"Child, maybe?"
"What would child do way out

here?"
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"That's what I thought, too,"

HE took the arrow back, held it between his thumbs and forefingers and twirled it slowly, with a terrifying thought nibbling at his brain. It couldn't be. It was too fantastic. He wondered if the sun was finally getting him that he had thought of it et all

He squatted down and dug at the ground with the makeshift arrow point. "Sipar, what do you actually know about the Cytha?"

"Nothing, mister. Scared of it is all."

"We aren't turning back. If there's something that you know — something that would help

It was as close as he could come to begging aid. It was further than he had meant to go. He should not have asked at all, he thought angrily.

"I do not know," the native said.

Duncan cast the arrow to one
side and rose to his feet. He
cradled the rifle in his arm. "Let's

go."

He watched Sipar trot ahead.

Crafty little stinker, he told himself. It knows more than it's tell-

ing.

They toiled into the afternoon, It was, if possible, hotter and drier than the day before. There was a sense of tension in the air—no, that was not. And even if there were, a

" man must act as if it were not there. If he let himself fall prey to every mood out in this empty land, the only had himself to blame for whatever happened to him.

The tracking was harder now. The day before, the Cytha had only run away, straight-line fleeing to keep ahead of them, to stay out of their reach. Now it was becoming tricky. It backtracked often in an attempt to throw them off. Twice in the afternoon, the trail blanked out entirely and it was only after long searching that Slour oticked it up again—in one

instance, a mile away from where it had vanished in thin air. That vanishing bothered Duncan more than he would admit. Trails do not disappear entirely, not when the terrain remains the same, not when the weather is unchanged. Something was going on, something, perhaps, that Sipar

knew far more about than it was willing to divulge.

He watched the native closely and there seemed nothing suspicious. It continued at its work. It was, for all to see, the good and faithful bound.

LATE in the afternoon, the plain on which they had been traveling suddenly dropped away. They stood poised on the brink of a great escarpment and looked far out to great tangled forests and a flowing river. It was like suddenly coming into another and beautiful room that one had not expected.

This was new land, never seen before by any Earthman. For no ne had ever mentioned that somewhere to the west a forest lay beyond the bush. Men coming in from space had seen it, probably, but only as a different color-marking on the planet. To them, it

made no difference.
But to the men who lived on
Layard, to the planter and the
trader, the prospector and the hunter, it was important. And I,
thought Duncan with a sense of
triumph, am the men who found

it.

"Now what?"
"Out there, Skun!"

"I don't--" si "Out there, mister. Across the driver."

Duncan saw it then—a haze in the blueness of the rift—a puff of copper moving very fast, and as he watched, he heard the far-off keening of the storm, a shiver in the air rather than a sound.

He watched in fascination as it moved along the river and saw the boiling fury it made out of the forest. It struck and crossed the river, and the river for a moment seemed to stand on end, with a sheet of silvery water splashed

toward the sky.

Then it was some as quickly as

it had happened, but there was a tumbled slash across the forest where the churning winds had traveled.

Back at the farm, Zikkara had warned him of the skun. This was the season for them, it had said, and a man causht in one wouldn't

have a chance.

Duncan let his breath out slowly.

"Bad," said Sipar.

"Yes, very bad."

"Hit fast. No warning."
"What about the trail?" asked
Duncan. "Did the Cytha..."

Sipar nodded downward.
"Can we make it before night-

"I think so," Sipar answered.

It was rougher than they had thought. Twice they went down

blind trails that pinched off, with sheer rock faces opening out into drops of hundreds of feet, and were forced to climb again and find another way.

They reached the bottom of the escarpment as the brief twilight closed in and they hurried to gather firewood. There was no water, but a little was still left in their canteens and they made do with that

A FTER their scant meal of not a himself into a ball and went to ed sleep immediately.

Duncan sat with his back against a boulder which one day, long ago. had fallen from the slope above them, but was now half buried in the soil that through the ages had kept sifting down. Two days gone, he told him-

Two days gone, he told him self.

Was there, after all, some truth in the whispered tales that made the rounds back at the settlements—that no one should waste his time in tracking down a Cytha, since a Cytha was unkillable?

Nonsense, he told himself, And yet the hunt had toughened, the trail become more difficult, the Cytha a much more cunning and elusive quarry. Where it had run from them the day before, now it fought to shake them off. And if it did that the second day, why had it not tried to throw them off the first? And what about the third day-tomorrow?

third day-tomorrow?

He shook his head. It seemed incredible that an animal would become more formidable as the hunt progressed. But that seemed to be exactly what had happened. More spooked, perhaps, more particular to be the seed of the control of the control

acting like an animal that was gaining savvy and determination, and that was somehow frightening. From far off to the west, toward the forest and the river, came the laughter and the howling of a pack of screamers. Duncan leaned his rifle against the boulder and got up to pile more wood on the fire. He stared out into the western darkness, listening to the racket. He made a very face and pushed a hand absent-mindedly through his hair. He put out a silent hope that the screamers would decide to keep their distance. They were something a man could do without. Behind him, a pebble came

Behind him, a pebble came bumping down the slope. It thudded to a rest just short of the fire.

Duncan soun around, Foolish

bing to do, he thought, to camp so near the slope. If something big should start to move, they'd be out of luck. He stood and listened. The night

was quiet Even the screamers had shut up for the moment. Just one rolling rock and he had his hackles up. He'd have to get himself in hand.

hand.

He went back to the boulder, and as he stooped to pick up the rifle, he heard the faint beginning of a rumble. He straightened swiftly to face the scarp that blotted out the star-strewn sky—and the rumble grew!

IN one leap, he was at Sipar's side. He reached down and grasped the native by an arm, jerked it erect, held it on its feet. Sipar's eyes snapped open, blinking in the firelight. The rumble had grown to a

The rumble had grown to a roar and there were thumping noises, as of heavy boulders bouncing, and beneath the roar the silky, ominous rustle of sliding soil and rock

Sipar jerked its arm free of Duncan's grip and plunged into the darkness. Duncan whirled and followed.

They ran, stumbling in the dark, and behind them the roar of the sidding, bouncing rock became a throaty roll of thunder that filled the night from brim to brim. As he ran, Duncan could feel, in dread anticipation, the gusty breath of hurtling debria blowing on his neck, the crushing impact of a boulder smashing into him,

of a boulder smashing into him, the engulfing flood of tumbling talus snatching at his legs.

A puff of billowing dust came out and caught them and they ran choking as well as stumbling. Off

to the left of them, a mighty chunk of rock chugged along the ground in jerky, almost reluctant fashion. Then the thunder stopped and all one could hear was the small

slitherings of the lesser debris as it trickled down the slope. Duncan stopped running and

slowly turned around. The campfire was gone, buried, no doubt, beneath tons of overlay, and the stars had paled because of the great cloud of dust which still billowed up into the sky.

He heard Sipar moving near him and reached out a hand, searching for the tracker, not

knowing exactly where it was. He y, found the native, grasped it by the d shoulder and pulled it up beside him.

Sipar was shivering.
"It's all right," said Duncan.

And it was all right, he reassured himself. He still had the rifle. The extra drum of ammunition and the knife were on his belt, the bag of rockahominy in his pocket. The canteens were all they had lost the canteens and the fire.

"We'll have to hole up somewhere for the night," Duncan said.
"There are screamers on the loose."

HE didn't like what he was thinking, nor the sharp edge of fear that was beginning to crowd in upon him. He tried to shrug it off, but it still stayed with him, just out of reach.

Sipar plucked at his elbow.
"Thorn thicket, mister. Over
there. We could crawl inside. We

would be safe from screamers."

It was torture, but they made it.

"Screamers and you are taboo," said Duncan, suddenly remembering. "How come you are afraid of them?"

"Afraid for you, mister, mostly. Afraid for myself just a little. Screamers could forget. They might not recognize me until too late. Safer here."

"I agree with you," said Duncan.

The acreamers came and padded all about the thicket. The beasts sniffed and clawed at the thorns to reach them, but finally went away When morning came, Duncan

and Sipar climbed the scarp, clambering over the boulders and the tons of soil and rock that covered their camping place. Following the gash cut by the slide, they clambered up the slope and finally reached the point of the slide's be-

ginning. There they found the depression in which the poised slab of rock had rested and where the supporting soil had been dug away so that it could be started with a push, down the slope above the campfire. And all about were the deeply

sunken pug marks of the Cythal

īν NOW it was more than just a hunt. It was knife against the throat, kill or be killed. Now there was no stopping, when before there might have been. It was no longer sport and there was no mercy.

"And that's the way I like it." Duncan told himself He rubbed his hand along the rifle barrel and saw the metallic

glints shine in the noonday sun. One more shot, he prayed. Just give me one more shot at it. This time there will be more than three sodden hunks of flesh and fur lying in the grass to mock me. He squinted his eyes against the heat shimmer rising from the river, watching Sipar hunkered beside the water's edge.

The native rose to its feet and trotted back to him "It crossed," said Sipar, "It

walked out as far as it could go and it must have swum " "Are you sure? It might have waded out to make us think it

crossed, then doubled back again." He stared at the purple-green of the trees across the river. Inside that forest, it would be hellish going.

"We can look," said Siper. "Good. You go downstream, I'll go up." An hour later, they were back.

They had found no tracks. There seemed little doubt the Cytha had really crossed the river. They stood side by side, looking at the forest.

"Mister, we have come far. You are brave to hunt the Cytha. You have no fear of death."

"The fear of death," Duncan said, "is entirely infantile. And it's beside the point as well. I do not

They waded out into the stream.

intend to die." The bottom shelved gradually and they had to swim no more than

a hundred yards or so.

time there will be no slip-up. This They reached the forest bank GALAXY SCIENCE FICTION

and throw themselves flet to rest Duncan looked back the way that they had come. To the east, the escarpment was a dark-blue smudge against the pale-blue burnished sky. And two days back of that lay the farm and the yua field. but they seemed much farther off than that They were lost in time and distance: they belonged to an-

other existence and another world All his life it seemed to him. had faded and become inconsequential and formatten as if this moment in his life were the only one that counted: as if all the minutes and the hours all the breaths and heartbeats, wake and sleep, had pointed toward this certain hour upon this certain stream with the rifle molded to his hand and the cool, calculated bloodlust of a killer riding in his brain.

CIPAR finally got up and began to range along the stream. Duncan sat up and watched.

Scared to death, he thought, and vet it stayed with me At the complies that first night it had said it would still to the dooth and apparently it had meant exactly what it said. It's hard, he thought, to figure out these jokers. hard to know what kind of mental operation, what seethings of emotion what brand of ethics and what variety of belief and faith an to make them and their way of life

It would have been so easy for Sipar to have missed the trail and swear it could not find it Even from the start, it could have refused to go. Yet, fearing, it had some Reluctant it had trailed Without any need for faithfulness and loyalty, it had been loyal and faithful But loval to what Duncan wondered to him the outlander and intruder? Loyal to itself? Or perhaps, although that seemed impossible faithful to the

Cytha? What does Sipar think of me, he asked himself, and maybe more to the point, what do I think of Sipar? Is there a common meeting ground? Or are we, despite our humanoid forms condemned forever to be alien and apart?

He held the rifle across his knees and stroked it polishing it, petting it, making it even more closely a part of him, an instrument of his deadliness, an expression of his determination to track and kill the Cytha

Just another chance, he begged Just one second or even less to draw a steady bead. That is all I want, all I need, all I'll ask.

Then he could go back across the days that he had left behind him, back to the farm and field. back into that misty other life from which he had been so mysteriously divorced but which in time undoubtedly would become real and meaningful again

Sipar came back, "I found the trail."

Duncan beaved himself to his foot "Good!" They left the river and plunged into the forest and there the heat closed in more mercilessly than ever - humid stiffing heat that

felt like a soggy blanket wrapped tightly round the hody.

The trail lay plain and clear. The Cytha now, it seemed, was intent upon piling up a lead without recourse to everine tactice Perhaps it had reasoned that its pursuers would lose some time at the river and it may have been trying to stretch out that margin even further. Perhaps it needed that extra time, he speculated, to set up the necessary machinery for

another dirty trick Sipar stopped and waited for Duncan to catch up. "Your knife, mister?"

Duncan hesitated, "What for?" "I have a thorn in my foot" the native said. "I have to get it out." Duncan pulled the knife from his belt and tossed it. Sipar caught it deftly.

Looking straight at Duncan. with the flicker of a smile upon its lips the native cut its throat.

HE should go back, he knew. have a chance The odds were

now with the Cytha-if, indeed, they had not been with it from the very start

Helitloble Helitloble become it grew in intelligence to meet emergencies? Unkillable because, pressed, it could fashion a how and arrow however crude? Unkillable because it had a sense of taction like rolling rocks at night upon its enemy? Unkillable because a native tracker would cheerfully kill itself to protect the Cytha?

A cost of crisis-baset perhaps? One able to develop intelligence and abilities to meet each new situation and then lapsing back to the level of non-intelligent contentment? That, thought Duncan. would be a sensible way for anything to live. It would do away with the inconvenience and the irritability and the discontentment of intelligence when intelligence was unneeded. But the intelligence, and the shilities which went with it would be there safely tucked away where one could reach in and get them, like a necklace or a gun -something to be used or to be put away as the case might be.

Duncan hunched forward and with a stick of wood pushed the fire together. The flames blazed up anew and sent enorge flying up into the whienering derkness of the trees. The night had cooled off a little, but the humidity still hung on and a man felt uncomfortable-a little frightened too.

Duncan lifted his head and stared up into the fire-flecked darkness. There were no stars because the heavy foliage shut them out. He missed the stars. He'd feel better if he could look up and see them.

When morning came, he should go back. He should quit this hunt which now had become impossible and even slightly foolish. But he knew he wouldn't Some-

where along the three-day trail, he had become committed to a purpose and a challenge, and he knew that when morning came, he would go on egain. It was not hatred that drove him, no reven the trophy-urge—the hunter-luck that prodded men to kill something strange or harder to kill orrolling the strange of harder to kill or bigger than any man had ever the strange of the Cythu's meaning with his own.

He reached out and picked up the rifle and laid it in his lap. Its barrel gleamed dully in the flickering campfire light and he rubbed his hand along the stock as another man might stroke a woman's throat.

"Mister," said a voice.

IT did not startle him, for the word was softly spoken and for a moment he had forgotten that Sipar was dead—dead with a half-smile fixed upon its face and with its throat laid wide open.
"Mister?"

Duncan stiffened.

Sipar was dead and there was no one else-and yet someone had spoken to him, and there could be only one thing in all this wilderness that might speak to him.

"Yes," he said.

He did not move. He simply sat there, with the rifle in his lan.

"You know who I am?"
"I suppose you are the Cytha."

"I suppose you are the Cytha."
"You have done well," the Cytha
said. "You've made a splendid
hunt. There is no dishonor if you
should decide to quit. Why don't
you go back? I promise you no

It was over there, somewhere in front of him, somewhere in the brush beyond the fire, almost straight across the fire from him, Duncan told himself. If he could keep it talking, perhaps even lure it out-

"Why should I?" he asked. "The s hunt is never done until one gets the thing one is after."

"I can kill you, the Cytha told him. "But I do not want to kill. It hurts to kill."

It hurts to kill."
"That's right," said Duncan.

"You are most perceptive."

For he had it pegged now. He knew exactly where it was. He

knew exactly where it was. He could afford a little mockery. His thumb slid up the metal and nudged the fire control to automatic and he flexed his legs beneath him so that he could rise and fire in one single motion.

"Why did you hunt me?" the Cytha saked. "You are a stranger on my world and you had no right to hunt me. Not that I mind, of course. In fact, I found it stimulating. We must do it again. When I am ready to be hunted, I shall come and tell you and we can spend a day or two at it."

"Sure we can," said Duncan, rising, And as he rose into his crouch, he held the trigger down and the gun danced in insane fury, the muzzle flare a flicking tongue of hatred and the hail of death hissing spitefully in the underbush.

"Anytime you want to," yelled Duncan gleefully, "Til come and hunt you! You just say the word and I'll be on your tail. I might even kill you. How do you like it, chump!"

And be held the trigger tight and kept his crouch so the slugs would not fly high, but would cut their swath just above the ground, and he moved the muzzle back and forth a lot so that he covered extra ground to compensate for any miscalcuations he might have made.

THE magazine ran out and the gun clicked empty and the vicious chatter stopped. Powder smoke drifted softly in the campfire light and the smell of it was perfume in the nostrils and in the underbrush many little feet were running, as if a thousand frightened mice were scurrying from catastrophe.

Duncan unhooked the extra magazine from where it hung upon his belt and replaced the empty one. Then he snatched a burning length of wood from the fire and waved it frantically until it burst into a blaze and became a torch. Rille grasped in one hand and the torch in the other, he plunged into the underbrush. Little chittering

things fled to escape him.

He did not find the Cytha. He found chewed-up bushes and soil churned by flying metal, and he found five lumps of flesh and fur, and these he brought back to the

Now the fear that had been stalking him, keeping just beyond his reach, walked out from the shadows and hunkered by the campfire with him. He placed the rifle within easy

reach and arranged the five bloody chunks on the ground close to the fire and he tried with trembling fingers to restore them to the shape they'd been before the bullets struck them. And that was a good one, he thought with grim irony, because they had no shape. They had been part of the Cytha and you killed a Cytha inch by inch, not with a single shot. You knocked a pound of meat off it the first time, and the next time you shot off another pound or two, and if you got enough shots at it, you finally carved it down to size and maybe you could kill it then, although he wasn't sure

He was afraid. He admitted that he was and he squatted there and watched his fingers shake and he kept his jaws clamped tight to stop the chatter of his teeth.

The fear had been getting closer all the time; he knew it had moved in by a step or two when Sipar cut its throat, and why in the name of God had the damn fool done in the fear of the fe

But then what was the use of searching for any reason in it? Nothing that had happened made any sense. It made no sense that a beast one was pursuing should up and talk to one-although it did fit in with the theory of the crisis-beast he had fashioned in his mind.

PROGRESSIVE adaptation, he told himself. Carry adaptation far enough and you'd reach communication. But might not the Cytha's power of adaptation be running down? Had the Cytha gone about as far as it could force itself to go? Maybe so, he thought. It might be worth a gamble. Sipar's suicide, for all its casualness, bore the overtones of last-notch desperation. And the Cytha's speaking to Duncan, its attempt to parley with him contained a note of weakness.

The arrow had failed and the rockslide had failed and so had r Sipar's death. What next would the Cytha try? Had it anything to

try?
Tomorrow he'd find out. Tomorrow he'd go on. He couldn't turn

He was too deeply involved. He'd always wonder, if he turned back now, whether another hour or two might not have seen the end of it. There were too many questions, too much mystery there was now far more at stake than ten rows of vus.

sense of it, might banish the dread walker that trod upon his heels, might bring some peace of mind. As it stood right at the moment,

As it stood right at the moment, none of it made sense. But even as he thought it, suddenly one of the bits of bloody

Beneath the punching and prodding of his fingers, it had assumed a shape.

a shape.

Breathlessly, Duncan bent above
it, not believing, not even wanting
to believe, hoping frantically that

it should prove completely wrong.

But there was nothing wrong with it. The shape was there and

with it. The shape was there and could not be denied. It had somehow fitted back into its natural shape and it was a baby screamer -well, maybe not a baby, but at least a tiny screamer.

Duncan sat back on his heels and sweated. He wiped his bloody hands upon the ground. He wondered what other shapes he'd find if he put back into proper place the other hunks of limpness that lay beside the fire.

He tried and failed. They were too smashed and torn.

He picked them up and tossed them in the fire. He took up his rifle and walked around the fire, sat down with his back against a tree, cradling the gun across his knees.

THOSE little scurrying feet, he wondered—like the scampering of a thousand busy mice. He had heard them twice, that first night in the thicket by the waterhole and

in the thicket by the waterhole and again tonight.

And what could the Cytha be?

Certainly not the simple, uncomplicated, marauding animal he had

thought to start with.

A hive-beast? A host animal? A thing masquerading in many dif-

Shotwell, trained in such deductions, might make a fairly accurate guess, but Shotwell was not

g. here. He was at the farm, fretting, g more than likely, over Duncan's d failure to return

Finally the first light of morning began to filter through the forest and it was not the glaring, clean white light of the open plain and bush, but a softened, diluted, fuzzy green light to match the smother-

ing vegetation.

The night noises died away and the noises of the day took up-

the sawings of unseen insects, the screechings of hidden birds and something far away began to make a noise that sounded like an empty barrel falling slowly down a stairway.

What little coolness the night had brought dissipated swiftly and the heat clamped down, a breathless, relentless heat that quivered in the air. Circling, Duncan picked up the

Cytha trail not more than a hundred yards from camp.

The beast had been traveling

fast. The pug marks were deeply sunk and widely spaced. Duncan followed as rapidly as he dared. It was a temptation to follow at a run, to match the Cytha's speed, for the trail was plain and fresh and it fairly beckoned.

And that was wrong, Duncan told himself. It was too fresh, too plain-almost as if the animal had gone to endless trouble so that the

He stopped his trailing and GALAXY SCIENCE FICTION crouched beside a tree and studied the tracks ahead. His hands were too tense upon the gun, his body keyed too high and fine. He forced himself to take slow, deep breaths. He had to calm himself. He had to loosen up.

He studied the tracks aheadfour bunched pug marks, then a long leap interval, then four more bunched tracks, and between the sets of marks the forest floor was innocent and smooth.

Too smooth, perhaps. Especially the third one from him. Too smooth and somehow artificial, as if someone had patted it with gentle hands to make it unsuspicious.

Duncan sucked his breath in slowly.

Trap?

Or was his imagination playing tricks on him?

have fallen into it if he had kept on following as he had started out.

Now there was something else, a strange uneasiness, and he stirred uncomfortably, casting frantically for some clue to what it was.

HE rose and stepped out from the tree, with the gun at ready. What a perfect place to set a trap, he thought. One would be looking at the pug marks, never at the space between them, for the space between would be neutral

d ground, safe to stride out upon.

Oh, clever Cytha, he said to himly self. Oh. clever, clever Cytha!

And now he knew what the
other trouble was—the great uneasiness. It was the sense of being
watched.

Somewhere up ahead, the Cytha was crouched, watching and waiting-anxious or exultant, maybe even with laughter rumbling in its threat

He walked slowly forward until he reached the third set of tracks and he saw that he had been right. The little area ahead was smoother than it should be.

"Cythal" he called.

His voice was far louder than
he had meant it to be and he stood
astonished and a bit abashed.

Then he realized why it was so loud.

It was the only sound there was! The forest suddenly had fallen silent. The insects and birds were quiet and the thing in the distance had quit falling down the stairs. Even the leaves were silent. There was no rustle in them and they huns limp upon their stems.

There was a feeling of doom and the green light had changed to a copper light and everything

And the light was copper!

Duncan spun around in panic.

There was no place for him to

There was no place for him to hide.

nucled out of nowhere. The air was closeed with flying leaves and debris. Trees snapped and popped and tumbled in the air. The wind hurled Duncan to his

knees, and as he fought to regain his feet, he remembered, in a blinding flash of total recall, how it had looked from atop the escarpment -the boiling fury of the winds and the mad swirling of the coppery mist and how the trees had

whipped in whirlpool fashion, He came half erect and stumbled, clawing at the ground in an attempt to get up again, while inside his brain an insistent, clicking voice cried out for him to run, and comewhere another voice said

to lie flat upon the ground, to dig in as best he could. Something struck him from behind and he went down pinned flat, with his rifle wedged beneath him He crecked his head upon the ground and the world whirled

sickeningly and plastered his face with a handful of mud and tattered leavees He tried to crawl and couldn't. for something had grabbed him by the ankle and was hanging on

VITH a frantic hand, he clawed the mess out of his eves spat it from his mouth Across the spinning ground,

something black and angular tumbled repidly. It was coming

sten, the slow come and the winds straight toward him and he saw it was the Cytha and that in another second it would be on top of him

> He threw up an arm across his face, with the elbow crooked, to take the impact of the wind-blown Cytha and to ward it off.

But it never reached him. Less than a yard away, the ground opened up to take the Cytha and

it was no longer there, Suddenly the wind cut off and the leaves once more hung motionless and the heat clamped down

again and that was the end of it. The skun had come and struck and gone. Minutes Duncan wondered or

perhaps no more than seconds. But in those seconds, the forest had been flattened and the trees lay in shattered hears. He raised himself on an elbow

and looked to see what was the matter with his foot and he saw that a fallen tree had trapped his foot beneath it. He tugged a few times experi-

mentally. It was no use. Two closeset limbs, branching almost at right angles from the hole had been driven deep into the ground and his foot he saw had been caught at the ankle in the fork of the buried branches

The foot didn't hurt-not yet It didn't seem to be there at all He tried wiggling his toes and felt

....

He wiped the sweat off his face with a shirt sleeve and fought to force down the panic that was rising in him. Getting panicky was the worst thing a man could do in a spot like this. The thing to do was to take stock of the situation, figure out the best approach, then so ahead and try it.

The tree looked heavy, but perhaps he could handle it if he had to, although there was the danger that if he shifted it, the bole might settle more solidly and crush his foot beneath it. At the moment, the two heavy branches, thrust into the ground on either side of his ankle, were holding most of the

tree's weight off his foot.

The best thing to do, he decided, was to dig the ground away beneath his foot until he could pull

it out.

He twisted around and started digging with the fingers of one hand. Beneath the thin covering of humus, he struck a solid surface

and his fingers alid along it.

With mounting alarm, he explored the ground, scratching at the humus. There was nothing but rock — some long-buried boulder, the top of which lay just beneath the ground.

His foot was trapped beneath a heavy tree and a massive boulder, held securely in place by forked branches that had forced their splintering way down along the boulder's rider. HE lay back, propped on an elbow. It was evident that he could do nothing about the buried boulder. If he was going to do anything, his problem was the tree.

To move the tree, he would

need a lever and he had a good, stout lever in his rifle. It would be a shame, he thought a little wryly, to use a gun for such a purpose, but he had no choice. He worked for an hour and it

was no good. Even with the rifle as a pry, he could not budge the tree.

He lay back defeated breathing

He lay back, defeated, breathing hard, wringing wet with perspiration.

He grimaced at the sky.

All right, Cytha, he thought,

you won out in the end. But it took a skun to do it. With all your tricks, you couldn't do the job until

Then he remembered. He sat up hurriedly. "Cythal" he called.

The Cytha had fallen into a hole that had opened in the ground. The hole was less than an arm's length away from him, with a little debris around its edges still trickling into it.

Duncan stretched out his body, lying flat upon the ground, and looked into the hole. There, at the bottom of it, was the Cytha. It was the first time he'd gotten a good look at the Cytha and it was a crazily put-together thing. It seemed to have nothing functional about it and it looked more like a heap of something, just thrown on the ground, than it did an animal.

The hole, he saw, was more than an ordinary hole. It was a spit and very clevely constructed. The mouth was about four feet in diameter and it widend to roughly twice that at the bottom. It was, in general, bottle-shaped, with an incurring shoulder at the top so that anything that fell in could not climb out. Anything fall-

ing into that pit was in to stav. This Duncon knew was what had lain beneath that too-smooth interval between the two sets of Cytha tracks. The Cytha had worked all night to dig it, then had carried away the dirt due out of the pit and had built a flimsy camouflage cover over it. Then it had gone back and made the trail that was so loud and clear, so easy to make out and follow. And having done all that, having labored hard and stealthily, the Cytha had settled down to watch, to make sure the following human had fallen in the pit.

**HI, pal," said Duncan. "How are you making out?" The Cytha did not answer.

"Classy pit," said Duncan. "Do you always den up in luxury like this?"





But the Cytha didn't answer. Something queer was happening to the Cytha. It was coming all

Duncan watched with fascinated horror as the Cytha broke down into a thousand lumps of motion that scurried in the pit and tried to scramble up its sides, only to fall back in tiny showers of sand.

apart.

Amid the scurrying lumps, one thing remained intact, a fragile object that resembled nothing quite so much as the stripped skeleton of a Thanksgiving turkey. But it was a most extraordinary Thanksgiving skeleton, for it throbbed with pulsing life and glowed with a steady violet light.

Chitterings and squeakings came out of the pit and the soft patter of tiny running feet, and as Duncan's eyes became accustomed to the darkness of the pit, he began to make out the forms of some of the scurrying shapes. There were tiny screamers and some donovans and assemill birds and a bevy of kill-devils and something else as well.

Duncan raised a hand and pressed it against his eyes, then took it quickly away. The little faces still were there, looking up as if beseeching him, with the white shine of their teeth and the white rollins of their eyes.

white rolling of their eyes.

He felt horror wrenching at his
stomach and the sour, bitter taste
of sampleion welled into his threat

but he fought it down, harking back to that day at the farm before they had started on the hunt.

"I can track down anything but screamers, stilt-birds, longhorns and donovans," Sipar had told him solemnly. "These are my taboos." And Sinar was also their taboo.

And Sipar was also their taboo, for he had not feared the donovan. Sipar had been, however, somewhat fearful of the screamers in the dead of night because, the native had told him reasonably, screamers were forcetful.

Forgetful of what! Forgetful of the Cytha-mother?

Forgetful of the Cyths-mother? Forgetful of the motley brood in which they had spent their child-

hood?
For that was the only answer to what was running in the pit and the whole, unsuspected answer to the enigma against which men like Shotwell had frustratedly banged their heads for years.

STRANGE, he told himself. All right, it might be strange, but if it worked, what difference did it make? So the planet's denizens were seeless because there was no need of sex — what was wrong with that? It might, in fact, Duncan admitted to himself, head off a lot of trouble. No family spats, no triangle trouble, no fight-inservicing, it did seem downright peaceful.

And since there was no sex, the

Cytha species was the planetary mother — but more than just a mother. The Cytha, more than likely, was mother-father, incubator, nursery, teacher and perhaps many other things besides, all milled into one.

In many ways, he thought, it might make a lot of sense. Here natural selection would be ruled out and ecology could be controlled in considerable degree and mutation might even be a matter of deliberate choice rather than random hampentance.

And it would make for a potential planetary unity such as no other world had ever known. Everything here was kin to everything else. Here was a planet where Man, or any other allering must learn to tread most softly, For it was not inconceivable in a crisis or a clash of interests, in a crisis or a clash of interests, one might find himself faced suddenly with a unified and cooperating planets with every form of life

The little scurrying things had given up; they'd goe back to their places, clustered around the pulsing violet of the Thanksgiving skeleton, each one fitting into place until the Cytha had taken shape again. As if, Duncan told himself, blood and nerve and muscle had come back from a brief vacation to form the beast anew.

making common cause against the

interloper.

"Mister," asked the Cytha, "what do we do now?"

"You should know," Duncan told it. "You were the one who dug the pit." "I split myself," the Cytha said.

"A part of me dug the pit and the other part that staved on the surface got me out when the job was done."

"Convenient," grunted Duncan, And it was convenient. That was what had happened to the Cytha when he had shot at itit had split into all its component parts and had got away. And that night beside the waterhole, it had spied on him, again in the form of all its separate parts from the safety of the thicket.

"You are caught and so am I," the Cytha said. "Both of us will die here. It seems a fitting end to our and the sling to safety. association. Do you not agree with me?"

"I'll get vou out," said Duncan wearily. "I have no quarrel with children."

H^E dragged the rifle toward him and unhooked the sling from the stock. Carefully he lowered the gun by the sling, still attached to the barrel, down into the pit.

The Cytha reared up and grasped it with its forenews. "Easy now," Duncan cautioned.

"You're heavy, I don't know if I can hold you."

But he needn't have worried

The little ones were detaching themselves and scrambling up the rifle and the sling. They reached his extended arms and ran un them with scrabbling claws, Little sneering screamers and the comic stilt-birds and the mouse-size killdevils that snarled at him as they climbed. And the little grinning natives - not habies scarcely children, but small editions of fullgrown humanoids. And the weird

arms and across his shoulders and milled about on the ground beside him, waiting for the others. And finally the Cytha not skinned down to the hare hones of its Thanksgiving-turkey-size, but far smaller than it had been. climbed awkwardly up the rifle

donovans scampering happily.

They came climbing up his

Duncan hauled the rifle up and twisted himself into a sitting poeition

The Cytha, he saw, was reassembling.

He watched in fascination as the restless miniatures of the planet's life swarmed and seethed like a hive of bees, each one clicking into place to form the entire beast.

And now the Cytha was complete. Yet small-still small-no more than lion-size. "But it is such a little one,"

Zikkara had argued with him that morning at the farm. "It is such a young one."

Just a young brood, no more than suckling infants—if suckling was the word, or even some kind of wild approximation. And through the months and years, the Cytha would grow, with the growing of its diverse children, until to became a monstrous thing.

It stood there looking at Duncan and the tree.

"Now," said Duncan, "if you'll push on the tree, I think that be-

"It is too bad," the Cytha said, and wheeled itself about.

He watched it go loping off.

"Hey!" he yelled.

But it didn't stop.

He grabbed up the rifle and had it halfway to his shoulder before he remembered how absolutely futile it was to shoot at the Cytha.

He let the rifle down.
"The dirty, ungrateful, double-

He stopped himself. There was no profit in rage. When you were in a jam, you did the best you could. You figured out the problem and you picked the course that seemed best and you didn't panic at the odds.

He laid the rifle in his lap and started to hook up the sling and it was not till then that he saw the barrel was packed with sand and dist

He sat numbly for a moment, thinking back to how close he had been to firing at the Cytha, and if

ore that barrel was packed hard ing enough or deep enough, he might ind have had an exploding weapon in and his bands.

He had used the rifle as a crowbar, which was no way to use a gun. That was one way, he told himself, that was guaranteed to

DUNCAN hunted around and

D found a twig and dug at the clogged muzzle, but the dirt was jammed too firmly in it and he made little progress.

He dropped the twig and was

hunting for another stronger one when he caught the motion in a nearby clump of brush.

He watched closely for a moment and there was nothing, so he resumed the hunt for a stronger twig. He found one and started poking at the muzzle and there was another flash of motion. He twisted around, Not more

than twenty feet away, a screamer sat easily on its haunches. Its tongue was folling out and it had what looked like a grin upon its face.

And there was another, just at

the edge of the clump of brush where he had caught the motion first.

There were others as well, he

There were others as well, he knew. He could hear them sliding through the tangle of fallen trees, could sense the soft padding of their feet The executioners, he thought, The Cytha certainly had not

wasted ony time He raised the rifle and rapped the barrel smartly on the fallen tree trying to disladge the obstruction in the hore But it didn't budge; the barrel still was packed

with sand. But no matter-he'd have to fire anyhow and take whatever chance there was

He shoved the control to automatic and tilted up the muzzle. There were six of them now. sitting in a ragged row, grinning at him, not in any hurry. They were sure of him and there was

no hurry. He'd still be there when they decided to move in. And there were others-on all sides of him

Once it started, he wouldn't have a chance.

"It'll be expensive, gents," he told them

And he was astonished at how calm, how coldly objective he could be, now that the chips were down. But that was the way it was he realized

He'd thought, a while ago, how a man might suddenly find himself face to face with an aroused and cooperating planet. Maybe this was it in miniature.

The Cytha had obviously passed the word along: Man back there

needs killing. Go and get him. Just like that, for a Cytha would

be the power here. A life force. the giver of life, the decider of life, the repository of all animal life on the entire planet.

There was more than one of them, of course. Probably they had home districts, spheres of influence and responsibility mapped out. And each one would be a power successe in its own district

Momism, he thought with a sour grin. Momism at its absolute peak. Nevertheless he told himself

it wasn't too bad a system if you wanted to consider it objectively. But he was in a poor position to be objective about that or anything else.

THE screamers were inching L closer, hitching themselves forward slowly on their bottoms. "I'm going to set up a deadline

for you critters." Duncan called out. "Just two feet farther, up to that rock, and I let you have it." He'd get all six of them, of

course, but the shots would be the signal for the general rush by all those other animals slinking in the brush If he were free, if he were on his feet, possibly he could heat

them off. But pinned as he was, he didn't have a chance. It would be all over less than a minute after he opened fire. He might, he figured, last as long as that, The six inched closer and he

raised the rifle.

But they stopped and moved no farther. Their ears lifted just a little, as if they might be listening, and the grins dropped from their faces. They squirmed unessily and assumed a look of guilt and, like shadows, they were gone, melting away so swiftly that he scarcely saw them go.

Duncan sat quietly, listening, but he could hear no sound.

Reprieve, he thought. But for how long? Something had scared them off, but in a while they might be back. He had to get out of here and he had to make it fast. If he could find a longer lever.

he could move the tree. There was a branch slanting up from the topside of the fallen tree. It was almost four inches at the butt and it carried its diameter well.

He slid the knife from his belt and looked at it. Too small, too thin, he thought, to chisel through a four-inch branch, but it was all he had. When a man was desperate enough, though, when his very life depended on it, he would do any-

He hitched himself along, silding toward the point where the branch protruded from the tree. His pinned leg protested with stabs of pain as his body wenched it around. He gritted his teeth and pushed himself closer. Pain slashed through his leg again and he was still lane inches from the branch.

He tried once more, then gave

up. He lay panting on the ground.

There was just one thing left.

There was just one thing left. He'd have to try to hack out a notch in the trunk just above his leg. No, that would be next to impossible, for he'd be cutting into the whorled and twisted grain at the base of the supporting fork. Either that or cut off his foot.

and that was even more impossible. A man would faint before he got the job done.

It was useless, he knew. He could do neither one. There was nothing he could do.

F OR the first time, he admitted to himself: He would stay here and die. Shotwell, back at the farm, in a day or two might set out hunting for him. But Shotwell would never find him. And anyhow, by nightfall, if not sooner, the screamers would be back.

He laughed gruffy in his throat
--laughing at himself.
The Cytha had won the hunt

hands down. It had used a human weakness to win and then had used that same human weakness to achieve a viciously poetic vengence.

After all, what could one expect?
One could not equate human ethics with the ethics of the Cytha.
Might not human ethics, in certain cases, seem as weird and illogical, as infamous and ungrate-

He hunted for a twig and be-

gan working again to clean the rifle bore.

A crashing behind him twisted him around and he saw the Cytha. Behind the Cytha stalked a donovan.

He tossed away the twig and raised the gun. "No." said the Cytha sharply.

The donovan tramped purposefully forward and Duncan felt the prickling of the skin along his back It was a frightful thing Nothing could stand before a donovan. The screamers had turned tail and run when they had heard

it a couple of miles or more away. The donovan was named for the first known human to be killed by one. That first was only one of many. The roll of donovanvictims ran long, and no wonder, Duncan thought. It was the closest he had ever been to one of the beasts and he felt a coldness creeping over him. It was like an elephant and a tiger and a grizzly bear wrapped in the selfsame hide. It was the most vicious fighting machine that ever had been spawned.

He lowered the rifle. There would be no point in shooting. In two quick strides, the beast could be upon him.

The donovan almost stepped on him and he flinched away. Then the great head lowered and gave the fallen tree a hutt and the tree bounced for a vard or two. The

donovan kept on walking. Its nowerfully muscled stern moved into the brush and out of sight. "Now we are even," said the

Cytha. "I had to get some help." Duncan grunted. He flexed the leg that had been trapped and he could not feel the foot. Using his

rifle as a cane, he pulled himself erect. He tried nutting weight on the injured foot and it screamed with pain.

He braced himself with the rifle and rotated so that he faced the Cytha. "Thanks, pal," he said. "I didn't

think you'd do it." "You will not hunt me now?" Duncan shook his head "I'm in

no shape for hunting. I am heading home." "It was the vua, wasn't it? That was why you hunted me?"

"The vua is my livelihood," said Duncan. "I cannot let vou eat it." The Cytha stood silently and Duncan watched it for a moment. Then he wheeled. Using the rifle for a crutch, he started hobbling

away The Cytha hurried to catch up with him.

"Let us make a bargain, mister. I will not eat the vua and you will not bunt me. Is that fair

enough?" "That is fine with me," said

Duncan "Let us shake on it" He put down a hand and the Cytha lifted up a paw. They shook. somewhat awkwardly, but very solemnly.

"Now," the Cytha said, "I will see you home. The screamers would have you before you got out of the woods."

v

THEY halted on a knoll. Below them lay the farm, with the vua rows straight and green in the red soil of the fields.

"You can make it from here," the Cytha said. "I am wearing thin. It is an awful effort to keep on being smart. I want to go back to ignorance and comfort."

"It was nice knowing you," Duncan told it politely. "And thanks for sticking with me."

He started down the hill, lean-

ing heavily on the rifle-crutch.

Then he frowned troubledly and turned back.

"Look" he said "you'll no back.

"Look," he said, "you'll go back to animal again. Then you will forget. One of these days, you'll

ery see all that nice, tender vua and—"
"Very simple," said the Cytha.
will "If you find me in the vua, just

begin hunting me. With you after me, I will quickly get smart and remember once again and it will be all right."

all right." "Sure," agreed Duncan. "I guess

that will work."

The Cytha watched him go stumping down the hill.

stumping down the hill.

Admirable, it thought. Next time
I have a brood, I think I'll raise
a dozen like him.

It turned around and headed for the deeper brush.

It felt intelligence slipping from it, felt the old, uncaring comfort coming back again. But it glowed with anticipation, seethed with

happiness at the big surprise it had in store for its new-found friend.

Won't he be happy and surprised when I drop them at his

prised when I drop them at his door, it thought. Will be ever pleased!

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